ABSTRACT OF THREE

Clinical Lectures,

WITH MICROSCOPICAL DEMONSTRATIONS,

ON

TRUE LICHEN AND ITS VARIOUS FORMS.

Delivered at University College Hospital,

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LECTURE II.

LICHEN SCROFULOSORUM.

THIS disease was first recognised by Hebra, and is generally considered to be very rare in this country, "infinitely rare" Dr. Tilbury Fox said in his book, though he afterwards modified this opinion. Although not common anywhere, Neumann estimating that in Germany its frequency is 3 per 1000 cases of skin diseases in adults, and 5 per 1000 in children, its rarity is exaggerated in this country from its frequently being unrecognised, and even a recent manual of skin diseases describes lichen circumscriptus and lichen marginatus as the "English form of this disease." The disease, as Hebra described it, is, however, distinct enough, and improved diagnosis will, I think, show that we have our fair share of this affection amongst us. In April, 1879, I showed a case at the Clinical Society, and at the same meeting the late Dr. Tilbury Fox read an account of six cases which had occurred in his private practice. Since then five other cases have come under my notice, some at University College Hospital, and the others at the East London Hospital for Children. As Dr. Liveing points out, there are several reasons why this disease should be overlooked. The papules are very small, frequently differ very little in colour from the surrounding skin, exist for the most part only on the trunk, and are not attended with inconvenience, there being little or no itching; and it is more common among the poor, who are less likely to seek advice for a disease which is neither prominent nor troublesome. Dr. Hilton Fagge thinks that when it is noticed it is called lichen circumscriptus.

The case before you presents most, but not all, of the characteristic features of the disease.

James H——, aged ten years, came to the hospital in November, 1880. There was no phthisis in the family, and the father and mother are alive and well, except the liability of the former to tonsillitis. The patient is thin and delicate-looking, with dark hair and eyes; presents no evidence of phthisis, but his tonsils are enlarged, and he is subject to cough, probably from his throat. For the last month he has suffered from kerion of the scalp, and the glands at the nape of the neck are consequently enlarged. The lichen eruption has been noticed for six weeks; it is symmetrically disposed upon both sides of the trunk, reaching up to the axillæ, but most abundant over the lower ribs. It exists, somewhat more sparsely, over the front of the abdomen, and may be faintly seen up the sternum as high as the third rib. It shows a decided tendency to form rings, but closely aggregated, and papules fill up the intervals between the rings. On the back, under the scapula, is a distinct oval patch, one inch and a half by one inch, uniformly covered with papules; and on the left side a few papules exist in a similar position. Another less distinct patch exists close to the spine, and a few papules are seen here and there on the back, but none on the limbs. On the left side of the neck is a patch of small red papules, which have come recently. Each papule is about the size of a pin's point, rounded and pierced by a hair; the colour when first seen was a pale red, but it is now much paler, and many scarcely differ from the normal skin. In the patch under the right shoulder, which is more recent, the papules are distinctly red, and in one of them a plug of sebum can be seen. The enlarged tonsils and the suppurative tendency of the ringworm are the only evidence of scrofula. In this case the papules were arranged in rings.

The following case shows the occurrence of the affection in patches:—

Jane M——, aged seven years, of healthy parentage, came to the East London Hospital for Children on July 21st, 1879. She was a stout, well-nourished, healthy-looking child, with no sign of scrofula or tubercle, and had never had a day's illness in her life. The eruption first came about a month ago on her neck and back, and the eruption had not altered. This consists of pale papules, very little redder than the surrounding skin, looking not unlike exaggerated goose skin, each is about one-twentieth of an inch in diameter, and being pierced by a hair is very slightly acuminate. They extend all round the neck behind from the nucha up to the hairy scalp, but in front not higher than the bend of the neck. On the trunk it affects back, front, and sides nearly equally, and extends for two or three inches down the thighs; above, upon the chest, it is much more thickly distributed upon the front than upon the back, and is especially marked in the axillary and subaxillary regions, and down the arms for two or three inches upon the inner side. It is nearly symmetrical, and the papules are, in the main, arranged in groups from one to three inches in diameter, but they are not limited to these groups. There are no acne pustules or papules upon any of the patches. The treatment was that of Hebra—namely, the administration of cod-liver oil internally in teaspoonful doses three times a day, and the inunction of the same drug into the affected skin. Under this treatment the papules very soon became less prominent, and she ceased to attend in five weeks from the commencement of treatment, doubtless because she was well. Here, then, is a case in which no scrofulous taint could be made out.

I will now draw a more complete picture of the disease, partly from an analysis of Dr. Fox's cases and my own, partly from the German authorities.

Etiology.—It is more common in males than females—indeed, in Hebra's first fifty cases they were all males; on the other hand, seven out of eleven English cases were girls. It may occur from infancy to the age of thirty (one of my cases was only two years old), but it is rare over the age of twenty-five. Hebra states that 90 per cent. show evidence of scrofula, especially in the form of enlarged glands at the upper part of the body; but none of his cases showed lung disease. Neumann, however, states that phthisical disease at the apices does occur sometimes in children. In none either of Dr. Fox's cases or my own was phthisis present, though it formed part of the family history in several. One of my cases, a child aged two years, had bronchitis. Evidence of scrofula was present in most of our cases, but not always marked. In the one I have just related, where the eruption was very typical, the family history was good and the child apparently in perfect health; nevertheless, cod-liver oil proved efficacious. Neither occupation, season, nor special state of nutrition appears to have any influence, and the only cause we can therefore assign is a scrofulous predisposition, and even this need not be pronounced. The papules are always small, but little larger than a pin's point, rounded or very slightly acuminate, and pierced by a fine hair. They vary in colour, being at first red, but becoming reddish-brown, yellowish, or even the same colour as the normal skin, and then they look like an exaggerated goose-skin. Their age is, I think, the main element in the colour of the papules; when they have been present some time another feature frequently presents itself, consisting of small acne pustules scattered in the patches, and their development may often be traced from a yellow plug of sebum filling the follicles up to the pustule. When this is the case, small, branny, glistening scales are also seen between the papules which are thrown off at intervals, and give the skin a very cachectic appearance. None of my own cases have shown this feature in a marked degree, but the boy before you has a plugged follicle on the patch under the shoulder—the early stage of the acne. Whether the acne papules suppurate or subside, they leave discoid darkly pigmented maculæ of the size of a lentil, and are followed by a fresh crop elsewhere. They sometimes occur even where no papules have preceded them—e.g., on the face or limbs. On the disappearance of the ordinary papules fawn-coloured puncta are left, which disappear slowly. When untreated they may remain unaltered for months, though involution and desquamation would occur, in some of them at least, followed by fresh crops, and so the disease as a whole might last for years. In other cases the eruption disappears for a time and then recurs. As you see in this

boy, the papules may be arranged in three ways—(1) in rings; (2) in groups; and (3) scattered papules, often partially filling up the intervals between the rings or groups. In him, too, you see what is the rule in the vast majority of cases—namely, that the eruption is confined to the trunk and neck, most abundant at the sides in the infra-axillary regions, and more in front than behind—more rarely upon the extremities, and, according to Neumann, in children occasionally upon the face and scalp. In children, too, it may be on the extremities, and not upon the trunk, but never in adults. Purpura in the form of the so-called lichen lividus is occasionally associated with it, of which there is a wax model in the museum.

Diagnosis.—By attention to the points mentioned difficulties will rarely arise. From pityriasis pilaris, a simple accumulation of horny cells in the mouth of a hair-follicle, it may be distinguished by the former being non-inflammatory, and therefore never red; that it affects the limbs chiefly, while lichen scrofulosorum affects the trunk; there are no acne pustules, and scrofula is not a predisposing cause; while xeroderma, or deficient ablutions, are the frequent concomitants. The papules, too, are larger. The distinctions between lichen scrofulosorum and true lichen pilaris, and also between it and the affection called lichen circinatus and circumscriptus, I will point out in my next lecture, when I propose to consider those diseases. There is, however, a somewhat rare syphilide, which very closely resembles the disease we are now considering. It is a syphilitic lichen, not the usual form, in which the papules are from one-twelfth to one-eighth of an inch in diameter, but in which they are very small and abundant. Such a case has been attending the hospital recently. The patient was a woman, aged forty-four, who had contracted marital syphilis fifteen months previously. The eruption had been out twelve months, but she had not been under treatment. The size and colour of the papules, their arrangement in rings and groups, and the pigmented puncta, where they had faded, were all exactly like the eruption of lichen scrofulosorum; but they were all over the limbs and scalp (not the face) as well as the trunk. This, therefore, and the age of the patient being greater than any recorded case of scrofulous lichen, led to further inquiry, when the syphilis was clearly made out.

Morbid anatomy.—The papule is formed, according to Kohn, by a cell infiltration of the papillæ round the follicle, and by a collection of horny cells at its widened mouth. Exudation cells are first seen round the vessels and in the meshes of the areolar tissue at the fundus of the hair-follicle and sebaceous gland, and later within them; they accumulate until the cells of the sebaceous gland are thrust towards the aperture, and separate the root-sheath from the wall of the follicle; later the hair-follicle is distended by the accumulated cell-mass.

Prognosis.—This, under suitable treatment, is always good.

Treatment.—Hebra's treatment is invariably successful. Cod-liver oil in large doses—as much as two ounces a day for an adult—is to be administered internally, while the same drug is to be rubbed into the eruption, and the skin kept constantly soaked with it. I have, however, succeeded in removing the eruption with more moderate doses of the oil, and with inunction three or four times a day. As far as the eruption is concerned, this treatment leaves hardly anything to be desired, but as the inunction of cod-liver oil is so very disagreeable both to the patient and friends, I propose, in this case, to try the effect of the inunction of vaseline, giving the oil internally.

P.S.—This treatment was carried out, and the eruption disappeared in five weeks, leaving only the stains.

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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[OWING to the necessity of publishing THE LANCET Map of Medical London on a specific date, previously fixed, we have been compelled to interrupt the arrangement of Dr. Mouat's paper on Hospitals. This will be resumed in our next issue.—ED. L.]

ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

In the last decade, according to the Census returns (unrevised) just published, the population of London within the registration area has increased from 3,254,260 to 3,814,571, or by 560,311 souls—an increase of 17·2 per cent. for the last ten years, that of the preceding ten years having been 16·1 per cent., or 1·1 less.

The ground covered by this population, and the extent of hospital accommodation provided for its sick poor, are as follows for the metropolitan area, plus the civil parish of Kingston:—

Area in Acres.	Area in Square Miles.	Population in 1881.	Persons to an Acre.	Persons to a Square Mile.	Total number of Hospitals, Infirmaries, Lunatic Asylums, &c.	Hospitals, &c., to each Square Mile.	Hospitals, &c., to Acres.	Ratio of Beds to Population.	Ratio of Beds to Population (excluding Lunatic Asylums).
80,186	125	3,839,730	47·9	30,718	109	1 to 1·1	1 to 736	1 to 172	1 to 205

As there are in London no less than ten different boundaries, each having different areas and population—a state of confusion which ought not to exist—I have taken that of the General Registration Area, with the parish of Kingston beyond it, as my basis, and the parish as my unit. There are twenty-eight registration districts, each containing a varying number of sub-districts, but several of these sub-districts are in more than one parish; hence, I have been unable to adopt them for the details of my calculations. In the illustrative Map, which the liberality of THE LANCET has enabled me to submit to the public and to the profession, the large numerals indicate the parishes, the asterisks the general and special hospitals, the crosses the Poor-law institutions, and the circles the lunatic asylums. The thin red lines, zigzagging with marvellous and bewildering eccentricity, for which possibly there may be some good reason unknown to me, are the boundaries of the registration districts themselves.

To enable any individual place to be found readily by those consulting the Map, I have had a double index prepared. No. 1 contains a list of the parishes in which the hospitals are situated. No. 2, an alphabetical list of the hospitals themselves, with references to the exact position of each.

A glance at the Map will show how very unequally the means of dealing with the sick poor in hospitals, outside the pauper class, are distributed. Taking Charing-cross as a centre, there are, within a radius of half a mile, 6 hospitals; within a mile, 19, and, in the circumference of the mile radius, a Poor-law infirmary in addition; within a mile and a half, 31, with 1 Poor-law institution, and a lunatic asylum; within two miles, 39, and 2 lunatic asylums; and within a radius of three miles from that centre, all the principal hospitals of London are placed. For the seven miles beyond this, to which the registration area extends and which contains the bulk of the population of London, there are barely a dozen

hospitals, none of them of any magnitude or importance. In this outer ring are, however, the chief of the Poor-law separate infirmaries, whose use is at present limited to paupers. In the two parishes of St. Anne's, Soho, and St. Andrew's, Holborn, there are no less than 11 hospitals.

This appears to me to show the urgent need of careful inquiry as to the amount of unnecessary expense and trouble entailed upon the sick poor, in seeking in-door relief in sickness, and as to how this can best be remedied.

Taken by registration districts, the same inequality is brought out in still more startling relief, as one or two examples will show.

Registration district 27 is *Lewisham*, the nearest point of the boundary of which is about five miles from Charing-cross, and the farthest a little more than ten miles. It covers an area of 11,436 acres, and has a population of 73,314, so scattered as to include only six persons to an acre. It has one hospital for women and children, in Upper Sydenham, for the eighteen square miles, and this gives a proportion of one bed to 2222 persons, in a special section only of the population.

Greenwich, which is the 26th district, and which covers 3426 acres, with a population of 131,264, or thirty-five to an acre, has two hospitals, or 1 to 2·7 square miles, available for the sick poor of its non-pauper civil population.

Woolwich, No. 28 district, covering an area of 6500 acres, and containing a population of 80,782, with twelve persons to an acre, has one hospital to 10·2 square miles for its civil population, and that is a Poor-law institution at Plumstead.

The following summary of the hospital accommodation of London, arranged in parishes, is necessary to its right understanding.

Parish.	Area of Parish.	Population in 1881.	No. of Persons per acre	No. of Hospitals &c in each Parish.	No. of Hospitals to the sq. mile.	Ratio of Beds to the Populn.
	Acres.					1 to
Battersea	2973	107,249	36	1	1 to 4·7	382
Bethnal-green ..	735	127,006	168	2	1 to 0·9	321
Bow	803	37,060	63	1	1 to 0·9	82
Camberwell ..	4450	186,555	42	3	1 to 2·3	170
Chelsea	796	88,101	111	7	1 to 0·2	71
Clapham	1137	36,378	32	1	1 to 1·3	650
Deptford	1574	84,641	54	1	1 to 2·5	257
Fulham	1716	42,895	25	1	1 to 2·7	179
Greenwich ..	1741	46,623	27	1	1 to 2·7	189
Hackney	3297	163,620	50	4	1 to 1·3	218
Hammersmith ..	2287	71,916	31	1	1 to 3·6	1199
Hampstead ..	2243	45,436	20	2	1 to 1·8	136
Islington	2107	282,628	91	6	1 to 0·8	180
Kensington ..	2190	162,924	74	3	1 to 1·1	234
Kingston	4824	36,345	8	1	1 to 7·5	242
Lambeth	3041	253,569	64	5	1 to 1·2	164
Lewisham ..	5774	53,053	9	1	1 to 9·0	135
Mile-end Old T.	679	105,573	156	1 pty.	—	—
Newington ..	632	107,881	171	1	1 to 1·0	107
Paddington ..	1251	107,093	86	3	1 to 0·6	274
Plumstead ..	3388	33,252	10	1	1 to 5·3	156
Rotherhithe ..	753	36,010	48	1	1 to 1·2	200
Saffron-hill ..	30	6,514	217	1	1 to 0·05	271
St. Andr., Holb	96	19,336	201	6	1 to 0·15	55
St. Anne, Soho..	54	16,591	307	5	5 to 0·06	108
St. Bart. the Less	4	319	235	1	1 to 0·006	1
St. Clem. Danes	53	11,065	209	1	1 to 0·05	55
St. Geo. Han.-sq.	1119	89,517	80	3	1 to 0·56	214
St. Geo. Southw.	884	88,653	207	3	1 to 0·1	196
St. Geo. in the E.	845	47,011	193	1	1 to 0·4	153
St. Giles in the F.	123	28,595	232	1	1 to 0·2	1144
St. James, West.	162	29,555	184	1	1 to 0·2	1422
St. John, West..	211	35,488	103	1	1 to 0·2	2959
St. Leond. Brom.	608	64,345	106	2 & 1 pty.	—	—
St. Luke	230	46,847	196	4	1 to 0·09	—
St. Marg. West..	604	24,604	40	1	1 to 0·9	114
St. Martin in t. F.	226	17,447	61	2	1 to 0·2	76
St. Marylebone..	1506	155,004	103	9	1 to 0·27	206
St. Olave	47	3,047	65	1 pty.	1 to 0·1	9
St. Pancras ..	2672	236,209	88	6	1 to 0·7	197
St. Savr. Christe.	77	13,056	177	1	1 to 0·1	1517
St. Saviour, Surr.	120	14,973	119	1 pty.	1 to 0·4	43
St. Stephen ..	27	1,799	67	1	1 to 0·04	18
Shadwell	66	8,004	118	1	1 to 0·1	89
Shoreditch ..	648	126,565	195	3	1 to 0·3	165
Spitalfields ..	73	21,341	292	1	1 to 0·01	534
Stoke Newings.	638	22,780	36	1	1 to 1·9	759
Wandsworth ..	2433	28,005	12	2	1 to 1·9	24
Whitechapel ..	170	80,704	151	2	1 to 0·1	21

It will be seen that in some cases the exact information for the two last columns is not given, as I have been unable to ascertain it from the registration returns.

In further explanation of the above, the subjoined detailed classified enumeration shows the number of each description of hospital in London, with the number of beds in each, and thus completes the information necessary to grasp the whole question under consideration.

1. GENERAL HOSPITALS.[1]

	Beds.		Beds.
Charing-cross Hospital	160	St. George's Hospital	335
French ,,	35	St. Mary's ,,	190
German ,,	125	St. Raphael's ,,	15
Great Northern ,,	30	St. Thomas's ,,	572
Guy's ,,	690	University Coll. ,,	160
King's College ,,	200	West London ,,	60
London ,,	790	Westminster ,,	215
Metropolitan Free ,,	40	Lond. Homœop. ,,	70
Middlesex ,,	310	,, Temperance ,,	17
Royal Free ,,	150		
St. Bartholomew's ,,	676		4860

2. SPECIAL HOSPITALS.

	Beds
Accidents.	
Poplar Hospital for Accidents	50
Cancer.	
The Cancer Hospital	70
St. Saviour's Cancer Hospital	45
Total	115
Chest Affections and Consumption.	
City of London for Diseases of the Chest	164
Hospital for Consumption	257
North London for Consumption	35
Royal National for Diseases of the Chest	26
Total	482
The Disorders of Children.	
Belgrave Hospital for Children	20
Cheyne Hospital for Sick and Incurable Children	33
East London Hospital for Children	90
Evelina for Sick Children	100
Hospital for Incurable Children	13
Hospital for Sick Children	104
North-Eastern for Children	30
Royal Infirmary for Children	50
Samaritan, Free, for Women and Children	52
Victoria for Children	65
Total	557
Convalescents.	
Metropolitan Convalescent Institution	150
For Cure of Deformities and Affections of the Limbs.	
City Orthopædic Hospital	24
Hospital for Hip Disease in Childhood	70
National Orthopædic Hospital	26
Royal Orthopædic Hospital	45
Total	165
Affections of the Ear and Throat.	
Central London Throat and Ear Hospital	25
Hospital for Diseases of the Throat and Chest	21
Metropolitan Ear and Throat Hospital	
Total	
Epilepsy and Nervous Disorders.	
Hospital for Diseases of the Nervous System	30
National Hospital for the Paralysed and Epileptic	100
Total	13
Affections of the Eye.	
Royal London Ophthalmic Hospital	100
Royal South London Ophthalmic Hospital	14
Royal Westminster Ophthalmic Hospital	50
Western Ophthalmic Hospital	20
Western Eye Hospital	12
Total	196

[1] For the indications in the Map, and for the information contained in all these tables, I am indebted to Mr. F. W. Purdy, of the statistical department of the Local Government Board, who has devoted much time, attention, and inquiry to render the facts collected as accurate as possible.

	Beds.
Fever.	
London Fever Hospital	260
Fistula.	
St. Mark's Hospital for Fistula, Piles, &c.	50
Heart.	
National Hospital for Diseases of the Heart and Paralysis	20
Incurables.	
British Home for Incurables	56
Home for Incurable Women	31
Hospital of St. John and St. Elizabeth	45
Royal Hospital for Incurables	160
Total	292
Invalids.	
Asylum for Invalids...	30
Lock.	
Lock Hospital for Females...	188
Lock Hospital for Males	20
Total	208
Lying-in.	
British Lying-in	25
City of London Lying-in	45
General Lying-in	30
Queen Charlotte's Lying-in	50
St. Saviour's Lying-in	17
Total	167
Skin Diseases.	
Hospital for Diseases of the Skin...	9
St. John's Hospital for Diseases of the Skin	17
Total	26
Small-pox.	
Small-pox and Vaccination Hospital	108
Stone and Urinary Diseases.	
St. Peter's Hospital for Stone	16
Women.	
Hospital for Women	61
,, ,, ...	8
,, ,, and Children	33
,, ,, ,, ...	12
New Hospital for Women	26
Total	140

	Inmates.
Poor Law Sick Asylums.	
Deptford Epidemic	330
Fulham	240
Homerton Fever	200
,, Small-pox	102
Hampstead Small-pox	300
Stockwell Fever	200
,, Small-pox	102
Total	1474
Lunatic Asylums.	
Bethlehem Hospital	311
Hanwell Asylum	2073
St. Luke's Hospital	
Wandsworth Asylum	1000
Bethnal House	410
Camberwell House	489
Grove Hall	452
Hoxton House	266
Peckham House	375

Metropolitan Pauper Infirmary Accommodation.—List of Separate Workhouse Infirmaries, showing—

(1) Parish in which the Infirmary is situate.	(2) Union or Parish to which the Infirmary belongs, with Address.	No. of Inmates for whom accommodation is provided.
Battersea	*Wandsworth and Clapham*— 10, St. John's-hill, New Wands.	280
Bromley (Middlesex) ..	*Poplar and Stepney*— Bromley, Middlesex.	186
Camberwell	*Camberwell*— Havil-street, Camberwell.	232
Chelsea	*Chelsea*— Cale-street, Chelsea.	272
,, ...	*St. George's*— Fulham-road.	776
George (St.) in-the-East	*George (St.) in the East*— Princes-st., Old Gravel-lne, E.	307
Greenwich	*Greenwich*— Tralfalgar-road Greenwich.	247
Hackney	*Hackney*— High-street, Homerton.	322
Islington	*Holborn*— Archway-rd., Upper Holloway	617
,, ...	*Islington*— St. John's-road.	540
Kensington	*Kensington*— Marloes-road, Kensington.	458
,, ...	*Marylebone (St.)*— Rackham-street, Ladgrove.	744
Lambeth	*Lambeth*— Pleasant-pl., Brook-st., Kenn.	622
Leonard (St.), Bromley and Mile-end Old-town	*London, City of* Bow-road, Mile-end.	645
Newington	*Saviour's (St.)*— Westmoreland-rd., Walworth	1010
Plumstead	*Woolwich*— Plumstead.	213
Rotherhithe	*Olave's (St.)*— Lower-road, Rotherhithe.	180
Shoreditch	*Shoreditch*— Kingsland-road.	470
St. Pancras	*Strand and Westminster*— 5, Highgate.	522
	St. Giles and St. George, Bloomsbury, and St. Pancras— 7, Cleveland-street.	281
Whitechapel	*Whitechapel*— Baker's-row, Whitechapel.	689

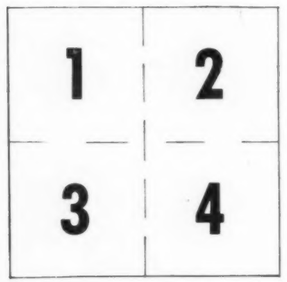
In all London, then, including hospitals of every kind and workhouse infirmaries, but excluding lunatic asylums, there appear to be somewhere about 30,000 beds available for diseases and accidents generally, and 1474 permanent beds for infectious fevers.

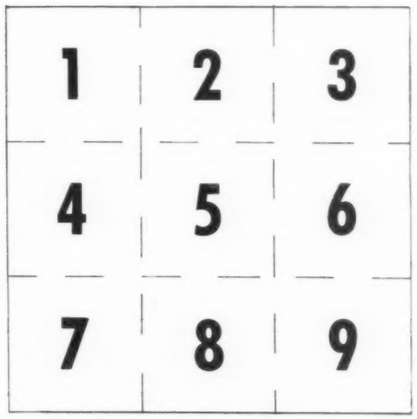
We have, unfortunately, no reliable statistics of serious sickness generally, in ordinary times, to show what approximate number of beds should always be kept ready for occupation.

The Poor-law returns give very exact figures of the paupers receiving relief. They number at the time I am writing this, the fourth week of May, 1881, 49,310 in-door, and 38,837 out-door paupers, including every class, old and young, sick and well, in and out of workhouses, infirmaries, schools, and asylums. They do not, however, separate those receiving relief from sickness, from other causes of destitution; and do not, of necessity, include the much greater mass of the poor who are unable to maintain themselves, or those dependent upon them, without eleemosynary aid when struck down by accident or disease.

For all who are able and willing to exercise a little self-denial, to practise a moderate amount of thrift, and to be self-reliant at all times and in all circumstances, benefit

Maps on this order too large to be entirely included in one exposure are filmed clockwise beginning in the upper left hand corner, left to right and top to bottom as many frames as required. The following diagrams illustrate the method.





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DISTRIBUTION OF MEDICAL RELIEF WITHIN THE METROPOLITAN AREA

LONDON, 1881.

The Metropolitan Area
London, 1881.

HOSPITALS, GENERAL & SPECIAL ARE SHEWN THUS ★
POOR LAW INSTITUTIONS ●
LUNATIC ASYLUMS

Printed by Edward Stanford, 55, Charing Cross, and Published by John James Croft, at No. 423, Strand, in the Parish of St. Martin-in-the-Fields, Westminster, Saturday, July 16, 1881.

societies, and, above all, provident dispensaries, furnish an invaluable resource in aid of hospitals in all attacks of disease not requiring in-door treatment; hence, again, an element of disturbance, of which the exact extent is an unknown quantity, a multitude of the cases seeking relief being of the most trifling description, at out-patients' departments and dispensaries generally.

Dr. Buckle of King's Lynn, writing on the Vital and Economical Statistics of Hospitals and Infirmaries of England for the year 1863, states that "in London alone 1,018,941 patients were treated, exclusive of clubs and Poor-law medical relief, of whom 41,567 were in- and 977,343 were out-patients, out of an estimated population of 2,803,034 inhabitants, giving a ratio of in-patients to population of 1 in 67·43. It is evident that this is a most fallacious basis of calculation both for in- and out-patients.

Dr. Oppert, writing in 1867, estimated that there should be four beds for the poor for every 1000 inhabitants, and that 12,000 beds would at that time have been sufficient. In the last twenty years the population has been shown to have increased about a third; so that, if his estimate be in any degree an approximation to the truth, there is ample accommodation at present existing, if it could all be utilised and properly distributed.

Here, again, is a problem which can only be solved by a competent authority empowered to collect, sift, and analyse the data necessary to determine this important question, in relation to which we are absolutely in the dark at present.

As already mentioned, and as the classified tabular statement shows, there are in and around London several separate workhouse infirmaries, containing very nearly 10,000 beds, which ought, I think, to be made available for the whole of the sick poor, instead of being restricted to paupers only. These institutions are, for the most part, well built, well managed, and are far superior in their construction and arrangements to most of the older endowed hospitals, and to those which have been patched up to extend their accommodation. For example, I have lately visited the University College and Westminster Hospitals to see the additions and alterations carried out in them, and I can only express my surprise that they should have received the sanction of any hospital surgeon or physician who has paid the least attention to the subject; for what has been done, even if it be right in itself, has left the cardinal defects of both the buildings unremedied.

Although I advocate the separation of sickness among the poor from the relief of destitution generally, as a question of public health policy, it is not because I undervalue the care and attention bestowed by boards of guardians upon the institutions under their charge. Indeed, there is much in their system of administration, and manner of investigating all cases brought to their notice, that is deserving of imitation in our great general hospitals. In any scheme of reorganisation of the medical relief of the metropolis a large share in the management of all the hospitals should, in my opinion, be assigned to the Poor-law guardians.

All of the institutions above mentioned should be utilised as schools of instruction in a manner that will require to be most carefully considered, as I do not think they ought to be attached to medical schools, or to be further employed for clinical purposes than to the moderate extent desirable and proper in a general hospital. All this demands public inquiry.

Again, two of the most thoughtful writers of our time, both men of exceptional experience, who have approached the hospital question from the standpoint of statistics, have arrived at the same conclusion as to the need for public investigation.

Dr. Steele, the medical superintendent of Guy's Hospital, notes as follows, in his valuable essay[3] on the mortality of hospitals, general and special:—"The high and increasing hospital mortality of recent years, which has been felt in the chief metropolitan institutions, will no doubt be attributed to the grave character of the cases received, but it is gradually assuming proportions which deserve the most serious consideration. It is proverbially remarked that the hospital which confers the largest amount of benefit on the community is that in which the death-rate is found to be the highest; but such an admission, if true, and if acted upon to the extent of admitting not only critical and incurable affections, would rob the hospital of half its value, and paralyse all efforts of medical skill in the shape of prevention. On the other hand, if the most pressing claims of the sick in an advanced stage of disease are disregarded, and preference is given to such as are recommended by supporters of the particular institution, who for the most part are strangers to the more urgent needs of the many, much injury may be inflicted on the sick poor, and on the objects which the hospital was purposed to fulfil."[3]

Mr. Lawson Tait, of Birmingham, after an exhaustive statistical inquiry, in an essay of equal value and authority, states that the whole of his statistics prove "that after the number of beds in a hospital exceeds 100, the risks to life become so much increased that it is questionable whether any hospital should be of larger size than this. If circumstances make it necessary that the hospital should be larger, most undoubtedly special arrangements and precautions should be taken to obviate the extra risk which is involved." He winds up his inquiry with recommending an exhaustive examination of the whole question, by a competent and duly authorised body.

In a return published by Dr. Steele in his essay, the death-rates in the general hospitals of London from 1872 to 1875 ranged from 7·20 per cent. in the Royal Free Hospital to 12·72 per cent. in King's College Hospital. If we possessed no other information than this on the subject, it would establish the absolute necessity of a searching public examination. There is every reason to believe, that these serious disproportions of risk continue to exist.

In a valuable report on pyæmia, septicæmia, and purulent infections, drawn up by a committee of the Pathological Society of London, and appended to the medical supplement of the Ninth Annual Report of the Local Government Board,[4] is the following tabular statement:—

TABLE II.—DECENNIAL RETURN OF DEATHS FROM PYÆMIA IN EIGHT LONDON HOSPITALS.

Hospital.	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	Total.
St. Bartholomew's	10	9	10	8	4	8	9	8	9	9	73
St. George's	11	15	11	7	11	*3	8	5	5	4	85
Guy's	21	22	23	19	20	20	23	20	22	13	250
London	10	7	17	22	19	29	27	16	21	12	180
Middlesex	4	6	10	7	8	9	9	6	5	1	58
Seamen's	4	5	9	3	5	10	7	6	4	3	60
St. Thomas's	4	4	7	†19	16	13	16	13	22	11	125
University	‡—	‡—	13	8	7	13	11	10	5	14	85
Totals	64	69	104	93	99	125	119	84	93	67	921

* Hospital closed for three months from June to September.
† First year in new buildings.
‡ Returns not given.

The most remarkable fact in this record is the place occupied by the new and very costly St. Thomas's Hospital, which bids fair to become the Lariboisière of London, as from the very commencement of its use it thus appears to have been afflicted by what eminent authorities consider in the way of disease, to be the crucial test of an unhealthy hospital. It must not be overlooked that most of the cases above recorded originated in the surgical wards of the institutions mentioned, and in this unhappy family are the oldest and youngest members of the brotherhood. At St. Thomas's six cases only were admitted from without from its opening to 1878; the rest arose within the wards. In addition to the pyæmia there were, in the same hospital, from 1869, thus including three years prior to the opening of the new buildings, 485 cases of erysipelas, of which 153 were admitted, and 332 originated in the wards.

It would be altogether out of place in this essay to attempt to explain these occurrences, of which the details are contained in the report above referred to. If such hospital opprobria are absent, as they are said to be, from smaller hospitals in better situations, and from those constructed more in consistence with the "new views," they point strongly to the urgency of due and proper investigation to set the question at rest.

With one exception, all the hospitals enumerated are attached to medical schools. Had this connexion anything to do with it? It is surely worth while to ascertain. In fact, the whole question of the relations of the schools

[3] Journal of the Statistical Society of London. No. xl., 1877, p. 196.

[3] Hospital Mortality, by Lawson Tait, F.R.C.S. London, 1877.

[4] Ninth Annual Report, Local Government Board, 1879-80, Appendix B, No. 3, p. 208.

to the hospitals is one of the most pressing matters needing better regulation. For example, the Westminster Hospital contains grave defects of construction, and the out-patients' department in the basement is remarkable for its insanitary state and surroundings, the dissecting-room is also in the basement, and the ventilation of the whole building is seriously impeded by some of the arrangements devoted to the school.

The state of matters, then, in London with respect to hospitals is so anomalous, and so difficult to understand, that in the interests of the sick poor it would be almost better for the State to take charge of them all, than to leave them in their present unsatisfactory position. The report of Messrs. Eristowe and Holmes, which is a store-house of information on the subject, specifies the very different manner in which access is gained to many of these institutions, and how impossible it is, under such a system, to establish any sound basis of comparison between them. The newspapers constantly contain piteous appeals to the public to afford additional funds to enable the authorities to occupy beds, empty compulsorily, while numbers of sick people seek, and are unable to obtain, admission. No proper accounts are rendered of the financial, or any other branch of hospital administration, with a few exceptions. The only portal to many of the very best hospitals in and about London is through the Poor-law, from the operation of which the great majority of the poor themselves naturally and properly shrink. Of most of the special hospitals too little that is reliable is known for a general estimate to be formed of the work they are doing; and with respect to the out-patients' department of most hospitals, the abuses are so flagrant as long to have occupied the attention of earnest and benevolent men in the, as yet, unsuccessful attempt to arrest or remove them. The luxury of almsgiving and misdirected benevolence, which are so productive of imposture, and so demoralising in their tendency, are too deeply implanted in some minds to permit them for a moment to reflect how much more real good might be done with their doles, if they would only consent to forego a small portion of this personal luxury, and pay their contributions to a common fund, to be utilised, under responsible direction, where they would be most useful to the sick poor.

What London really wants is a central authority to harmonise the action of the various hospitals, to determine from day to day where beds can best be found for accidents, injuries, or diseases, and so to regulate and direct their operations that all sick persons too poor to pay for medical treatment at home, and too thrifty and honest to care to become pauperised by circumstances over which they can themselves exercise little or no control, can find care and shelter on the earliest invasion of serious disease.

In such a body all hospitals, entitled to it, should be fairly represented. Two delegates from each would be ample, and with the telegraphs, telephones, and rapid means of communication now available, no difficulty need be experienced in its working. It should also have charge of the ambulances and keep them available at all times, in communication with the hospitals and the police stations, as obtains in New York. I think it should be an elective non-official body, probably in connexion with the future central government of London itself, should such a manifestly necessary authority ever be created.

A Royal Commission alone could deal with such a matter. The claims to be considered and reconciled are so many, so various, and so discrepant, the interests concerned are so large, and the end to be attained is so important, that by no other procedure or machinery known to our method of managing matters of self-government, could the essential preparatory information be collected and digested for the Legislature, with whom the application of the remedy must rest.

ERRATUM.—In p. 43, first column, eleventh line from the bottom, for 14,000 read 3531·71.

(To be continued.)

THE Municipal Council of Paris has recently made an improvement in the arrangements of the Morgue by adopting the refrigerating apparatus of M. Mignon and Rouart at a cost of 53,000 francs. The bodies on view will thus be capable of being preserved for a considerable time and the sanitary conditions of the Morgue will be greatly altered for the better, while the longer period of exposure will frequently further the ends of justice and give more favourable opportunities for identification.

PRACTICAL REMARKS ON THE TREATMENT OF SUMMER CATARRH AND HAY ASTHMA.

BY JOHN C. THOROWGOOD, M.D., F.R.C.P.,
PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK; LECTURER ON MATERIA MEDICA AT THE MIDDLESEX HOSPITAL.

THE fact, so ably demonstrated by Dr. Blackley, that catarrh, with or without asthmatic complication, is nearly always due to the inhalation of pollen granules from flowering grasses, explains how it is that so many who, during the summer, are tormented with catarrh and asthma are almost sure of relief if they fly from the cause of their trouble and take refuge on the sea. The above-named fact further guides us as to the kind of medication which is most likely to cut short the catarrhal tendency, or mitigate its severity. Filtration of the inspired air, so as to arrest all pollen germs by means of a respirator or air-filter, has been proved effective in keeping off the attack; but mechanically to protect mouth, nose, and eyes from the impact of pollen is so inconvenient and irksome a business that few would care to submit to it, save on rare occasions for the sake of experiment. Quite lately Mr. Barroughs of Snow Hill has invented a small machine, consisting of two rings easily fitting into the nostrils, and each supporting a receptacle on which a few drops of a camphorated or carbolised solution can be dropped, the vapour from which gradually passes into the nostrils. When in use this apparatus is hardly to be seen by a casual spectator.

Among the remedies for summer catarrh and asthma it will be observed that some act more especially over the catarrhal and congestive, others over the asthmatic or spasmodic, element in the disease. Remedies of more recent introduction have for their object the destruction of the pollen granules, and in this class, we find, antiseptics take a prominent place.

Anti-congestive remedies.—Of these one of the best is ammonia, used in the form of ordinary Preston salts (a mixture of the neutral carbonate of ammonia with oils of cloves and lavender), or as ammoniacal vapour, inhaled for a few minutes from a mixture of twenty drops of the liquor ammoniæ (B.P.) in a pint of water at 80° F. Ten drops of spirit of camphor and three to five of eucalyptus oil may be advantageously added often to this inhalation. The ammoniacal vapour slowly inhaled by the mouth and exhaled through the nostrils acts as a stimulant and promotes the mucous flux, by means of which the congested vessels are already commencing to relieve themselves. The action of the ammonia permanently tends to diminish hyperæmia of the mucous membrane, and in this respect ammonia differs markedly from other stimulating inhalations which give only temporary relief. Properly managed inhalation of chloride of ammonium is useful in cases where hyperæmia of mucous surfaces is very marked and chronic.

With a view to destroying the pollen granules in the nasal passages, drawing up into the nostrils, or inhaling as spray, a solution of sulphate of quinine is decidedly useful. Ten grains of the sulphate may be dissolved in one pint of distilled water and this solution snuffed up into the nostrils—a method preferable to the employment of the solution by the nasal douche for more than one reason.

Last summer I tried, for the relief of the throat irritation of summer catarrh, lozenges made for me by Young and Postans, of Baker-street, containing one grain of salicylate of quinine in each lozenge. The salicylate is supposed to act as a germicide and destroy the vitality of any inhaled pollen germs. Carbolic acid vapour, from one of Savory and Moore's vaporisers, is very useful. Iodine vapour I have also tried as an inhalation, but never saw any benefit come of its employment. A liniment of equal parts of chloroform, simple camphor liniment, and eucalyptus oil rubbed well round the throat relieves irritation, the smell, too, of the antiseptic eucalyptus oil is, at the same time, not without good effect. When the congestion and catarrh have extended downwards to the air-tubes so as to cause bronchial spasm and regular attacks of hay asthma, then few remedies appear to surpass arsenic, and this may be employed by vapour or by the mouth. As a remedy for asthma arsenious acid has long been used by the Chinese, and one of the first to intro-

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duce it into European practice was M. Cauvin, who, in THE LANCET for Aug. 10th, 1861, relates the case of a French lady who was for twenty-five years a martyr to severe attacks of spasmodic asthma, for the relief of which bleeding, belladonna, stramonium, and other remedies had been vainly tried. This lady commenced by inhaling a quarter of a grain of arsenious acid in a cigarette, and by degrees got to use as much as three grains. She always swallowed the smoke, and the relief to her asthma was speedy and permanent.

I have had opportunity of trying nitrated paper cigarettes made by Martindale of New Cavendish-street after the formula given by Trousseau, so that each cigarette contains three-quarters of a grain of the arseniate of soda, and find them very satisfactory. The patient should inspire deeply three or four times from the cigarette, then wait awhile, and see how he feels. I may say that I have never known any unpleasant effect to be caused by the careful administration in any form of arsenical remedies.

The headache and distressing after-feelings that so often follow the use of fuming inhalations of stramonium, belladonna, or opium cigarettes and powders, usually make persons averse to their employment, unless the asthma come on with great force. Tobacco-smoking, however, is a general and approved source of relief.

Internal remedies.—Space permits me to mention but a few of these, and among them I would give the first place to the preparations of arsenious acid. The acid may be given in a granule or pill in commencing dose of one-fiftieth of a grain three times daily one hour after food. Over both the catarrh and the bronchial spasm its effect will be found marked and decided, while gastric irritation and tendency to sickness often are much relieved, making one think the remedy may have some special action over the pneumogastric nerve.

The solution of arseniate of soda, in dose of two to five drops in water, may agree better than the arsenious acid in some cases; but if neither succeeds, then it is well worth while to try the following combination:—Fowler's solution, two minims; potass. iodid., two grains; liquor ammoniæ, five minims; water, one ounce; three times a day. It will succeed where arsenic and iodide of potassium separately fail to benefit. Troublesome œdema about the face and eyes, remaining after the more severe symptoms of asthma are gone, I have found to give way speedily to tincture of cantharides in dose of five minims with twenty of spirit of nitrous ether in water three times daily. A remedy, strongly recommended by Dr. Gream in 1850, is tincture of nux vomica; and there is no question as to its value in old-standing asthma with flatulent dyspepsia and irregular weak action of the heart. In these cases it goes well in dose of five to ten minims with dilute phosphoric acid and tincture of ginger. When Gream employed it in summer catarrh he also used acetate of lead ointment applied high up the nostrils, a remedy which, like snuff of bismuth subnitrate, would undoubtedly do much to relieve local irritation and congestion.

Another remedy, somewhat similar in action to nux vomica, inasmuch as it agrees remarkably well in cases of asthma with feeble cardiac power, is the citrate of caffeine. It is doubtful if the salt be a definite citrate, but it is now largely manufactured in Germany and can be easily had in this country. Two or three grains of the citrate dissolved in water or in warm coffee are by no means an unpleasant dose, and in such cases as those just indicated, it is unquestionably of considerable value. Where the citrate of caffeine fails to give decided relief to the asthma it nevertheless, as patients have informed me, greatly mitigates the exhaustion and depression that had been previously experienced after the severity of the attack had passed away.

Welbeck-street.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. C. R. Craddock, late of Gray's-inn-square, bequeathed £1000 each to the London Hospital, St. George's Hospital, the Seamen's Hospital Society. £500 each to Middlesex, St. Mary's, Charing-cross, King's College, University College, and the Lock Hospitals. £200 each to the Hospital for Women, Soho-square, the Hospital for Sick Children, the Hospital for Diseases of the Nervous System, Portland-terrace, St. John's Hospital for Skin Diseases, the Central London Ophthalmic Hospital, the Great Northern and the Cancer Hospitals.

ON "TENDON-REFLEX."

BY AUGUSTUS WALLER, M.D.

DR. BUZZARD'S recent articles in THE LANCET on the diagnostic use of "tendon-reflex" will doubtless help to popularise the routine employment of this test. It is so simple, so significant as a diagnostic guide, that it ought not to be treated as a refinement, but received in practice as a coarse and useful item. Probably by this time its value as an early sign of locomotor ataxy is recognised in the practice of all who discriminate that disease; less universally, perhaps, its absence is recognised as significant in the discrimination of infantile paralysis, of acute paralysis of the adult, and of pseudo-hypertrophic paralysis (anterior polio-myelitis). On the other hand, it is generally known that "tendon-reflex" is exaggerated in paraplegic interruptions of the cord, that it is not appreciably altered at first in cases of cerebral lesion, and that at a later period of cerebral hemiplegia its exaggeration on the affected side indicates the imminence or onset of late rigidity. These are its chief practical claims. Its physiological interpretation is a different matter, but is of some interest to the physician, if not directly, at least indirectly, as explaining the reason, and furnishing his reference or basis of observation; it is still more important to the physiologist as an article of his neurological creed. Is this so-called "tendon-reflex" in reality an action *sui generis* of which nerves from tendon to spinal centre and thence nerves to muscle are the actual mechanism; or is it no such thing? The affirmative is, with slight variations, the accepted theory of "tendon-reflex."

Seeing that the reaction is abolished by destruction of the spinal centre, or by "faults" in the up and down nerve paths (to use Dr. Buzzard's happy expression), it was supposed, and shortly asserted, that the contraction is excited by an impression reflected from the spinal cord—*non sequitur*. The observation was confirmed experimentally by the artificial production of the above lesions; the reaction was found to fail after destruction of its segmental centre, or after section of motor or of sensory channel, even if tonicity were maintained by moderate faradisation (Tschiriew). Still, *non sequitur*.

I believe[1] that the so-called "tendon-reflex" contraction is not reflex, but direct (as was supposed by Westphal when he first drew attention to the phenomenon), for its interval is that of a direct contraction, and unmistakably different from that of a spinal reflex. Unlike faradaic contraction, it fails after section of nerve or destruction of centre, because the adjustment of irritability and stimulus is a fine one, depending on a muscular tone, which requires the integrity of spinal centre and of afferent and efferent nerves, and which has not been imitated by "moderate faradisation." This very delicacy of adjustment constitutes its value as an early clinical sign.

I would reply to the criticism as to the reliability of measurements, that it is not a question of difference between 2 *versus* 3, or 3 *versus* 4 hundredths of a second, but one between 2 or 3 *versus* 10 or 12 hundredths (the time of a spinal reflex in man), and that this question is susceptible of positive answer, though I am aware that Dr. Gowers' estimate of the interval ($\frac{1}{10}$ to $\frac{1}{20}$ sec.) seems to contradict this. I would base nothing on differences between 2 and 3 or between 3 and 4 hundredths; in fact, the conditions of this experiment on man, as compared with animals, are necessarily rough, and admit of error between these numbers. Also the latency may vary considerably (i.e., 1 to 2 hundredths) with intensity of stimulation; and, finally, I may add that the direct latency varies greatly (reaching to $\frac{1}{50}$ sec.) with differences in the nature of stimulation. I would, therefore, lay little stress on the identity of "tendon-reflex" latency for muscles at different distances from the centre. Seeing, however, that the latency for "tendon-reflex" is not sensibly different from the latency of a direct electrical stimulus, or of a blow directly on the muscle, and sensibly different from that of an undoubted spinal reflex, I conclude that the "tendon-reflex" mechanism is direct. I find that muscular contraction follows percussion of tendon at an interval of about $\frac{1}{25}$ sec.; that muscular contraction follows muscular percussion at an interval also of about $\frac{1}{25}$

[1] See Brain, July, 1880.

sec.; that muscular contraction follows percussion to a nerve trunk at an interval of about $\frac{1}{1\,0\,0}$ sec.; that muscular contraction follows an electrical stimulus to muscle or nerve at an interval of about $\frac{1}{1\,0\,0}$ sec. Conversely I find that the sensori-motor contraction to skin stimuli in paraplegia is above $\frac{1}{1\,0\,0}$ sec., and that the abdominal skin reflex is also above $\frac{1}{1\,0\,0}$ sec.

The numerical argument may be formulated as follows. 1. Phenomena known to be direct ordinarily have a latent period between $\frac{1}{1\,0\,0}$ and $\frac{1}{1\,0\,0}$ sec. 2. Phenomena known to be reflex require an interval of at least $\frac{1}{1\,0\,0}$ sec. 3. Certain phenomena which can be proved to be direct have a latent period as high as $\frac{1}{1\,0\,0}$ sec.—i.e., the latent period varies with the mode of direct excitation. 4. The ordinary period of the "tendon-reflex" is about $\frac{1}{1\,0\,0}$ sec. Conclusion: the so-called "tendon-reflex" belongs to direct phenomena, not to reflex phenomena.

Two facts, in addition to the ordinary clinical argument, are opposed to this conclusion, and must therefore be mentioned.

First, with regard to the paradox of increased contraction to direct percussion with absent contraction to tendon percussion (Buzzard), I have only to say that I cannot explain it, and that I need not. It is comparable with the paradox of increased galvanic excitability with diminished or absent faradaic excitability; but just as in this case, the fact is no argument that the effect of faradaism is reflex, so in the former case the fact does not argue that the contraction of tendon-percussion is reflex.

A more direct objection is that made by Dr. Prévost, of Geneva,[2] who urges the crossed reflex (which, he says, can be unmistakably seen in experiments on animals), as proof of the spinal nature of the phenomenon. I think it necessary to mention this objection, for it is by far the most weighty, and I cannot meet it at present. I await his continuation of the subject, and admit before hand that the objection must prove fatal unless it can be met.

That "tendon-reflex" is a clinical test of spinal conditions I in no wise deny. A spinal influence is necessary to the normal state of muscle. The testing of a muscle by percussion of its substance or of its tendon is a peripheral test of muscular state, and significant of spinal condition in precisely the sense that electrical stimuli are muscular tests significant of spinal condition. This spinal influence varies with the state of cord; may be abolished with its destruction, or enhanced with its emancipation from superior influence; it may be cut off by section of motor roots, and apparently it is cut off by section of posterior roots; if so, it is reflex—namely, the influence is that known as the reflex tonic influence of the spinal cord. But the individual contraction of "tendon-reflex" is not reflex. This statement is in contradiction with the current clinical theory, and so long as that theory be adhered to, it appears to be in contradiction with clinical facts. But this is only apparent; dismissing the notion of the contraction being a reflex, and viewing it as a peripheral test only, there is no difficulty in explaining our clinical facts. Reflex spinal influence being a condition of the reaction, "faults" on the paths of that influence, or lesions of its centre, or above its centre, will play the same part in the alterations of the reaction as if the reaction were itself a reflex.

It is probable that we shall continue to use the name "tendon-reflex" long after we shall have lost faith in the theory which gave it; but we shall understand that "tendon-reflex" is only one among a class of muscular reactions to mechanical stimuli, in the same category with muscular reactions to electrical stimuli—viz., the category of peripheral muscular tests from which we infer spinal condition.

F.S. (July 12th).—Since the above was written (February) I have had the opportunity of examining, with Dr. Prévost, the question of crossed reflex. We found on rabbits that enervation of one limb, by section of the sciatic and anterior crural, supplemented by section of the posterior roots, did not abolish the crossed movement.[3] Percussion of the tendon on the injured side, causing, of course, no contraction on that side, gave on the opposite side a contraction at least as vigorous as before the injury. There is here no *physiological* transmission, therefore no "crossed reflex"; the effect must be due to the *physical* diffusion of vibration.

Upper Gloucester-place.

[2] Rev. Méd. de la Suisse Romande, Feb. 1881.
[3] Ibid, June, 1881.

A CLINICAL THERMOGRAPH

FOR RECORDING ON PERMANENT DIAGRAMS THE VARIATIONS OF TEMPERATURE OCCURRING IN A PATIENT DURING TWENTY-FOUR HOURS.

BY W. D. BOWKETT, M.R.C.S. ENG.,
RESIDENT MEDICAL OFFICER, FEVER HOSPITAL, LEEDS.

IN this instrument the changing pressure of a confined fluid under varying temperatures is used for the purpose of obtaining a motion for registering those variations on the following theorem: that the expansion of a given liquid under the influence of an increase of temperature is proportionate to that increase, and that, its free expansion being limited, the consequent pressure is also proportionate.

The portions of the instrument directly influenced by thermal changes consist of a flat circular vessel constructed of metal, of about three inches in diameter and three-eighths of an inch in thickness; in connexion with this, seen towards the outer edge of the engraving, is a hollow metallic

FIG. 1.

spring or curved tube of an elliptical section similar to that in use, although much smaller, in the Bourdon steam-gauge, and known after its inventor as the Bourdon tube. One end of this tube is fixed to, and communicates with, the chamber or vessel; the other is closed, and actuates a simple lever movement, as seen in the illustration. Now, the vessel and tube being filled with liquid (ether) and hermetically sealed, any increase of temperature causing the contained liquid to expand will produce a pressure acting upon the interior of the tube, or hollow spring, so as to cause the end in connexion with the lever to recede from its position of rest. The lever increasing the first movement some three times moves radially across the face of a disc. This disc is caused, by watchwork occupying the centre of the instrument, to revolve once in twenty-four hours, and is divided by concentric circles into degrees of temperature, and by twenty-four radial lines, into as many hours. The extremity of the lever is armed with an arrangement for marking an ink line on the disc, upon which it lightly bears. So that during the disc's revolution a line is drawn whose position in relation to the concentric circles marks the temperatures, and in relation to the radial lines the times of those temperatures. The discs are made of thin cardboard, and are exchanged after each tracing, the lever permitting of being lifted to allow of their removal. The graduation is effected in a water bath, by comparison with a mercurial thermometer. The upper or working parts are protected from injury by a vulcanite case. Owing to the incompressibility of liquids, the instrument is not appreciably affected by barometrical changes; nor does its use require the movements of the wearer to be in any degree restrained. The principle of construction permits of considerable variation in size, design, &c.

As described it is applied to the abdomen, the flat metallic under-surface being in contact with the skin, where

it is retained by a waistband of non-conducting material, which serves the double purpose of maintaining it in position and preventing undue radiation from the instrument and neighbouring skin. It is not contended that the record here obtained will always correspond with an axillary record, but the application of the instrument for many hours requires the selection of a locality, in sickness at least, where it will not be irksome to the wearer. The mere closure of the axilla for a sufficient time in many cases of sickness would be unbearable.

For practical clinical purposes, its application to the abdomen suffices. The difference from local variation varies from *nil* in some subjects to a degree in others, much depending upon the activity of the cutaneous circulation. Where, however, for purposes of research &c. great exactitude, or the registration of small rapid changes, is required, either the axilla must be chosen for its application, or, if placed on the abdomen, the hand should be fastened over it, thus placing it in a closed cavity. The latter is by far the less irksome plan. How little, however, these precautions are ordinarily required, a reference to the two charts illustrated below will indicate, Fig. 2 being a facsimile of a tracing from a case of phthisis, and Fig. 3 one from a case of ague.

FIG. 2.

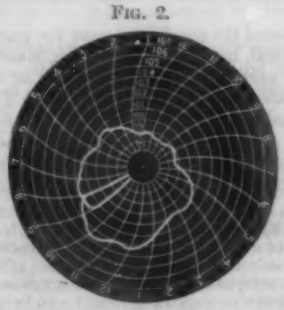
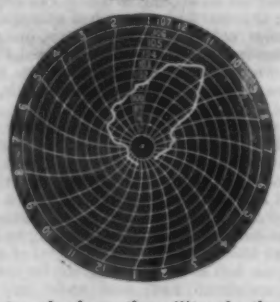


FIG. 3.



The latter strongly shows the utility of a thermograph, for owing to the paroxysms occurring at night, and their short duration, their existence had been overlooked by the nurse, and consequently questioned by the medical attendant, until the use of the instrument proved the truth of the patient's statement. A second record carefully checked by axillary observations evinced its accuracy.

The instrument is to be obtained exclusively from Messrs. Salt and Son, Birmingham, who have rendered me much service in the later stages of my invention.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.—The Leonard Prize, being the interest of the Leonard bequest of £1000, has been awarded in equal proportions to Messrs. J. O'Hagan, John McDonagh, and Thomas Donnelly, for the best reports of cases occurring in the hospital during the session now terminated.

INSOLATION IN THE UNITED STATES.—On Tuesday the mercury rose above 100 degrees along the entire Ohio valley. Cincinnati reports twenty-seven deaths from sunstroke; Pittsburg four; Newark, Ohio, four; with nine deaths elsewhere. About 150 deaths from sunstroke have occurred throughout the country since Saturday.

ACUTE IDIOPATHIC PERICARDITIS IN A CHILD; SEVERE PAIN BEFORE THE DEVELOPMENT OF PHYSICAL SIGNS; RECOVERY.

BY WILLIAM H. DAY, M.D.,
PHYSICIAN TO THE SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN.

W. M——, aged eleven, was admitted into the Samaritan Hospital, under my care, March 18th, 1881, at 2 P.M. Five days previously he complained of feeling cold and chilly, and sat near the fire; he suffered from pain in his throat and limbs, wandered at night, had persistent headache, and was sick the day before admission. There was no history of rheumatism or scarlet fever. On admission he could not sit up, and complained of frontal headache; the skin was moist, the face flushed, and there was fixed pain over the heart, but no morbid sounds could be detected on auscultation or percussion, and respiration was normal throughout the lungs. There was no articular complication, excepting some obscure tenderness about the ankles, which led to a suspicion of rheumatic fever. The temperature was 103° F.; pulse 100; respiration 36. The urine was of a clear straw colour, and acid reaction; it was free from albumen, and had a specific gravity of 1030. He was ordered the following draught every four hours: Salicylic acid, six grains; solution of acetate of ammonia, one drachm; syrup, twenty minims; water to half an ounce. At 10 P.M. he complained of great pain in the cardiac region, and his countenance was pinched and anxious. There was no pleurisy. Five minims of tincture of opium were given with a dose of the mixture, and ordered to be repeated in an hour if necessary. A warm linseed-meal poultice was applied to the whole sternal region.

March 19th.—He was in pain throughout the night over the region of the heart, screaming and moaning continually. A third dose of opium was given at 4 A.M. without benefit. At 8 A.M. the temperature was 103°; the pulse 112; the expression was clear, and the respiration not painful, though accelerated. He lay on his back with the legs drawn up. The tongue was covered in the centre with a whitish fur, there was considerable thirst, but the bowels were free, and the urine was pale and copious. He referred all his pain to the cardiac region, and to the back of the neck, crying out incessantly "Oh, my chest." As the heart sounds were normal, and there was no pulmonary mischief, I was inclined to attribute the pain to a rheumatic affection of the thoracic muscles, though the symptoms of rheumatism were wanting. A jacket poultice was applied to the chest, the dose of salicylic acid was doubled, and five minims of tincture of opium were added. At 8 P.M. the temperature was 103°, and the pulse 120.

20th.—At 8 A.M. the temperature was 102°; the pulse 100; respiration 40. He had slept for two hours at a time, and was quite free from pain in the chest. Since last report he had taken four doses of the mixture and fifteen minims of tincture of opium. He took beef-tea and milk well. At 8 P.M. the temperature was 102°; pulse 100, weak but regular; respiration 44. As he suffered from a return of pain in the chest the jacket poultice was resumed, though the heart's sounds were distinct.

21st.—Temperature at 8 A.M. 99·8°; pulse 88, regular; respiration 40. Passed a comfortable night without opium and looked brighter and better. A very hard to-and-fro friction sound was heard over the whole cardiac region, and the area of præcordial dulness was increased. The urine for the first time threw down a pinkish deposit, and was rather high coloured. A sinapism was applied to the chest, and the mixture continued.

22nd.—Temperature at 8 A.M. 99·4°; pulse 88, regular; respiration 40. The præcordial dulness extended an inch to the right of the sternum, but not to the left of the nipple. The murmur above and to the right of the nipple was rough and grating, below more undulating and distinct. To the right of the sternum the sound was of a distant cantering character, resembling a train getting up steam in the distance. The dulness extended one inch to the right of the sternum and ensiform cartilage. There was no delirium. The bowels had acted three times. Blistering fluid was

applied to the pericardial region, and the surface afterwards dressed with mercurial ointment and powdered opium, in the proportion of one ounce of the former to one drachm of the latter, and the following draught was ordered three times a day:—Ten grains of bicarbonate of potash, two grains of iodide of potassium, half a drachm of compound tincture of cinchona, in half an ounce of water.

23rd.—Slept well after 12 P.M., five minims of tincture of opium being added to each dose of the mixture to relieve the pain, now chiefly caused, as it seemed, by the action of the blister. At 8 A.M. he was sitting up in bed. Temperature 99·4°; pulse 72; respiration 30; friction sound the same.

24th.—At the apex was an approach to the first and second sound below the nipple, but the friction sound in this situation was drier; over the base of the heart it was of a sawing character. The morning and evening temperature did not exceed 99°.

26th.—A jumping spasmodic to-and-fro sawing sound was heard near the right nipple to the right of the sternum; at the upper portion of the sternum, near the left nipple, a more crepitating and lengthened sawing sound was heard. Temperature 99°.

29th.—The friction sound heard to the right of the sternum was very dry and rough; the sound was loose and crepitating above the left nipple, and in a less degree below.

31st.—The heart's sounds were now distinct, and there was no evidence of any fluid in the pericardium.

April 1st.—For three days had had pain in the epigastrium, extending through to the back between the scapulæ. The severe pain on pressure at the ensiform cartilage was caused by the distended pericardium being immediately behind it. The pain was not increased by swallowing, or after taking food. The temperature now ran up to 101 6°, the pulse to 112, and the respiration was hurried. The heart's sounds were quite distinct.

5th.—The temperature fell to 98·4°; pulse 68; respiration 24; no murmur could now be heard, endocardial or exocardial. As he was pale and weak, the following mixture was ordered three times a day:—Iodide of potassium, two grains; citrate of ammonia and iron, four grains; syrup, twenty minims; water to half an ounce.

26th.—Had been up since the 10th, looking much stronger and with more colour; he had a good appetite, the pulse and respiration were quiet, and there was no cough. The only thing to be detected was some increased softness and prolongation of the first sound near the apex. He was ordered solution of dialysed iron, fifteen minims; glycerine, twenty minims; water to half an ounce; three times a day.

May 8th.—Was discharged in good health.

Remarks.—There is every reason to suppose, from the history and the course which this case took, that it was one of genuine idiopathic pericarditis. Though pericarditis is usually associated with some blood change, as that from rheumatism, scarlet fever, or renal disease in young subjects, it sometimes arises *de novo*, or from the mere extension of inflammation, as from pneumonia or pleurisy. I once met with a case of acute pericarditis in a lad, sixteen years of age, who whilst driving in the cold air was suddenly seized with severe pain, of an acute character, in the cardiac region, followed in two days by the usual physical signs. The patient had been in good health previously, and there was no history of rheumatism or any other disease. Like the case under consideration, it was one of pure idiopathic pericarditis, and recovery was complete. It is probable that the exudation in this case was fluid and thin, rather than fibrinous and plastic. I incline to this opinion from the rapidity of absorption, the early return of the normal heart sounds, and the absence of those signs which indicate either disease of the muscular structure or adhesion between the parietal and visceral layers of the pericardium. It is also probable that the effusion was not extensive, from the absence of orthopnœa and lividity of the features, and the non-distension of the jugular veins. Lastly comes the question of diagnosis. It was impossible to say what the condition was till the friction sound was heard. With fever, quick pulse, and respiration, it was evident that something was impending; these symptoms taken together are significant. Severe pain with fever cannot be ignored; it stands out so prominently from all other symptoms, and is so exhausting in itself, that it cannot be dismissed and set aside like some objective phenomena not manifestly telling on the patient's state. But the case inculcates this important lesson. Acute pain over the cardiac region, accompanied by fever, is significant of commencing pericarditis, even before physical signs are present. The serous membrane cannot be kept at rest, inflamed and roughened; relief only comes when the effusion is large enough to separate the two layers, and so prevent painful friction between the contiguous surfaces. Frequent examination is indispensable, and we therefore cannot be too careful in watching for the first indications that point to the heart or pericardium being affected. Even in cases which have their origin in the most common of all causes, rheumatism, there may be inflammation of the serous membrane covering the heart for many days before any articular affection occurs, and, moreover, the case shows that the inflammation may be idiopathic, just as alterations in the mitral valve may gradually arise, producing contraction and thickening when no cause can be ascertained.

Manchester-square, W.

ON THE TREATMENT OF PUERPERAL CONVULSIONS BY HYPODERMIC INJECTION OF MORPHIA.

BY S. MABERLY-SMITH,

RESIDENT SURGEON AT THE LYING-IN HOSPITAL, MELBOURNE, VICTORIA.

HAVING found the usual treatment for puerperal convulsions, by chloral, bromide of potassium, bleeding, and chloroform, very unsatisfactory, by the advice of Dr. Fetherston I tried hypodermic injection of morphia. The result has been very successful in my own hands and in others'; and as I believe this plan of treatment is not generally adopted I bring it under notice. From fifteen cases treated in this manner in the Melbourne Lying-in Hospital, and by gentlemen outside, I have come to the following conclusions.

The quantity of morphia to be injected is from one-fourth to one-third of a grain, according to the severity of the case. The simple solution of morphia is more efficacious than morphia and atropia combined; one large dose is better than two smaller ones.

Patients suffering from puerperal eclampsia, whether sensible or insensible, appear to resist the dangerous effects of the drug; it seems to have no bad consequences in cases in which, under ordinary circumstances, morphia would be strongly contra-indicated. I have injected the solution in women who were insensible with stertorous breathing, congested lungs and faces, and contracted pupils, in every case with the best result.

After injection the patient may have one fit before the drug has had time to act, but never has another for hours, provided that the injection is proportionate to the severity of the attack. If at the end of some hours the patient has another fit it is generally a slight one, and a smaller injection than the first should be given. No case of puerperal eclampsia has died in the Melbourne Lying-in Hospital since this treatment has been adopted. Several of the patients so treated were as bad as it was possible for them to be, and I would, I am convinced, have died under any other form of treatment.

The following are short notes of the last five cases of puerperal convulsions admitted into the Melbourne Lying-in Hospital.

CASE 1.—M. B—— had four severe fits before delivery. The urine contained a trace of albumen. One-third of a grain of morphia was injected. There were no more fits. Delivery was accomplished naturally. Perfect recovery.

CASE 2.—M. T—— had a natural confinement; one hour after delivery patient was seized with convulsions, and had three in rapid succession; the last was so long and severe that the nurse thought that she was dead, and she certainly very nearly was. I injected one-third of a grain of morphia; convulsions ceased and never returned; urine contained a considerable quantity of albumen.

CASE 3.—B. M—— had five convulsions on the way to hospital. When admitted was insensible, with stertorous breathing, contracted pupils, and very weak pulse; no power over sphincters; very little albumen in urine; labour commencing. One-third of a grain of morphia was injected; no more fits for seven hours, then had a slight one. A quarter of a grain of morphia was injected; four very slight fits two hours after. Delivery accompanied with long forceps twelve hours after admission, patient being still insensible and very low. After delivery a quarter of a grain of morphia was

again injected; two very slight fits seven hours after last injection; patient had no more and made a rapid recovery.

CASE 4.—C. G——, six months pregnant, had seven fits in two days previous to admission, for which one-fifth of a grain of morphia with atropia had been injected twice at intervals of eight hours. This lessened the force of the convulsions, but did not stop them. Immediately after admission the patient had a severe fit. One-third of a grain of morphia injected; no more fits; delivered naturally; good recovery. Urine was loaded with albumen.

CASE 5.—K. K—— had a natural labour, but before the placenta was expelled was seized with a very severe convulsion, followed by two others equally bad. One-third of a grain of morphia injected. A few minutes after had a worse fit than the former ones. No more for eleven hours, then two, not so bad as the former ones. One-third of a grain of morphia again injected, after which she had no more, and made a good recovery. Urine contained a trace of albumen.

FRACTURE OF THE ANGLE OF THE JAW.

BY F. OGSTON, JUN., M.D.,
ASSISTANT PROFESSOR OF MEDICAL JURISPRUDENCE, AND LECTURER ON TOXICOLOGY, IN THE UNIVERSITY OF ABERDEEN.

ABOUT half-past two one morning last winter a gentleman called on me, stating that he had slipped on the snowy pavement and fallen on his left side, hitting his cheek sharply on a rounded projecting kerbstone, causing him considerable pain at the time, which returned when he opened his mouth.

On examining him I observed an excoriated and bruised, but not swollen, patch on the left cheek, and thought I felt crepitation on handling the lower jaw; but when I attempted to locate it I failed to do so, and was about to assure him that the jaw was uninjured, when again the crepitation was felt at its left angle. He was now directed to open his mouth widely, which caused slight pain; but no injury to any of the teeth or extravasation of blood along the gums could be detected. The whole left jaw was then examined by passing the fingers over its inner and outer sides within the mouth, but still no fracture could be detected. The forefinger of the left hand was then pressed deeply down between the tongue and the jaw, opposite the wisdom tooth, and the forefinger of the right hand placed firmly against the angle of the jaw outside the cheek; when by careful and firm manipulation crepitation was again produced over the angle, and it was found that a splinter of bone, about three-quarters of an inch in length and nearly a quarter of an inch at its thickest point, had been detached from the angle of the jaw, but which the muscles covering it retained *in situ*.

The treatment was merely to let the jaw have rest by eating soft food, in order to let the parts unite, as there was no displacement. I have thought it well to put this case on record, though the injury was a trivial one, as no account of any such fracture has been found in the surgical literature of England, France, or Germany.

ON MEDICAL EDUCATION.

BY J. C. ORCHARD, L.R.C.S. EDIN.

(Concluded from page 51.)

THE first professional examination should be on anatomy and physiology only. If the student pass he should not be examined on these subjects again. If he be found deficient in one or both, let it not be a bar to his entering into apprenticeship or pupilage for two years to a general practitioner, which I propose. But I would have him pass on both subjects before resuming his studies at a medical school at the end of his apprenticeship or pupilage.

As to lectures. A great many think that lectures of professors are *the* great means of medical education. There never was a greater mistake. There is no use whatever in lectures, except for the purpose of illustration. They are largely made up of discussions on theories and other useless matters. Let lectures be curtailed, and let them be confined more to practical and useful matters. Let theories and other useless matters be despatched as briefly as possible. Let those students who would wish to follow out these things be directed what books to study, and let them study at home.

And now for a very important matter—namely, hospitals and hospital instruction. A great reformation is required here. Some would require every student to act for six months as a dresser and six months as a clinical clerk. That would be all very good, but it is an impossibility. I should like to know how, in Edinburgh for example, with its numerous medical students, that could be possible. Surgical instruction in a hospital is far ahead of medical instruction. The student sees the operations performed, and sees surgical diseases. In the medical wards he only hears; he sees almost nothing. What is meant when we speak of hospital work by a student? What do we find? A physician of eminence at a certain hour every day, say at noon, enters his ward with a train of thirty or forty students. He has probably fifty patients to attend to. He can spare only two or three minutes, and scarcely so much, to each. He is accompanied by two clinical clerks; one writes the symptoms &c. in a book from the physician's dictation; the other, also from his dictation, writes the recipes in a book, to be made up by the dispenser. He then passes on to the next bed; the same is repeated; and so on till all the patients in the ward have been gone over. Even if inclined to lecture at the bedside, how can he with only two or three minutes, or less, to spare to each case? His time is precious, and he must hurry over his work as quickly as possible. What possible instruction can a student derive from such a system as this? It has been said that the students can afterwards examine the patients for themselves. But fancy thirty or forty students in succession examining a patient, teasing him with questions, using thermometer, stethoscope, &c.! What patient would submit to it? What friends of the patient would allow it? What physician in the interest of the patient would permit it? This would be somewhat similar to the disgusting proposal that when enough of obstetric cases cannot be found to enable the students to get the required number, three or four or even six students might attend the same case. Most of those who have "walked the hospital," after obtaining their degrees and diplomas, have felt the greatest difficulties in undertaking practice. In fact, they have had that to learn which they went to college to obtain—namely, a practical knowledge of diseases and of their treatment. It is only by long and laborious efforts that the shortcomings of the hospitals can be overcome. And yet the cry is, Hospitals, hospitals!

Our hospitals can only be properly utilised for instruction by increasing the number of physicians, by restricting the number of cases under their care, by restricting the number of students following them, and by requiring more time for the examination of the patients. Few physicians can afford more than an hour; but what is an hour, or even two, or three, or four, for the proper examination of forty or fifty cases? Much might be done if a physician were to be restricted to six or eight, or at most ten, pupils, and at the same time his patients restricted to ten or fifteen. He could then at the bedside make a few clinical remarks, and draw the attention of his pupils to anything particular relating to the patient and the treatment. This might supersede the regular clinical lecture; or better, perhaps, the physician's bedside instructions and his clinical lecture could proceed side by side. But this plan, I fear, will never be carried out.

In this matter of practical instruction the great reform would be to compel students, by apprenticeship or pupilage, to attend for two years the practice of a general practitioner. Under his eye he would have the management and treatment of cases, study the varying phases of disease, and watch the result of the treatment. He would also from his books study similar cases, and compare them with his own. In this manner he would obtain a very correct knowledge of medical, surgical, and obstetric practice, impossible to be obtained elsewhere, and have the required number of obstetric and other cases. I am aware that some bodies require six months' attendance on the practice of registered medical practitioners; but this is by far too short a time, and it may be done at any period, even before commencing medical study at all. To be of much use it ought to be for two years, and, if possible, after passing his first professional examination.

It is proposed that during his first two years the student

might get over some of the subjects on which there should be no examination—namely, chemistry, botany, and natural history. He should also have two courses of anatomy and physiology, and one course of surgery, practice of physic, and midwifery. After his two years of apprenticeship or pupilage are over, the student would resume his studies at a medical school or college for two years, during which time he would have one course of materia medica and medical jurisprudence, on which subjects there should be no examination, and one course of surgery, practice of physic, and midwifery, and attend the hospital practice, such as it is; after which would come his final or pass examination.

By many, materia medica may be thought an important subject, because it treats of drugs, their doses, actions, diseases in which used, method of preparation, &c. But all these—at least, the doses, actions, and diseases—are communicated to the students by the professors of surgery, practice of physic, and midwifery, in the course of their lectures on the different diseases. But let anyone consider the extent of the materia medica, embracing as it does some hundreds of articles and nearly two thousand preparations, and let him ask how is it possible to commit this great mass to memory? And of what use would it be? Of what use is it to a student, or to a medical practitioner either, to know, for example, that opium is derived from the plant Papaver somniferum, or that strychnia is a compound of so many atoms of oxygen, of hydrogen, of nitrogen, and of carbon? How is it possible for a student to learn and remember the great number of preparations, with their doses, their actions, and the diseases in which used? It is quite impossible, and also quite unnecessary. As I have said, the professors of surgery, practice of physic, and midwifery communicate all that is necessary to be known. As for the methods of preparation, they are of no use. No one thinks now of preparing his own drugs; and if he did he has nothing more to do than to turn up a book on the subject and he will find all the information he requires. I would, however, have every student attend a course of lectures on materia medica, but let there be no examination on the subject. It is so extensive that it is impossible for any student to hold in his memory even a fourth part of it. As in other subjects, he at present has to take his chance at the examination, and the result of past examinations shows that his chance would be a very poor one.

Having got rid of the greater part of the preliminary examination, and also the examination on chemistry, botany, natural history, materia medica, and medical jurisprudence, we will expect medical men to be stronger in body and mind, on account of less strain being put upon them at the medical schools, and, being better educated in practical matters, that they will be better medical practitioners. At present, many never completely recover from the severe strain to which their minds have been subjected while studying medicine.

I would also abolish summer sessions, at least, I would not make them compulsory. Everything necessary can be studied as well in the winter season as in summer. After a winter session of severe study, a period, and a long period, of relaxation is absolutely necessary. No one who has not been confined to a winter session of six months, with the hard study connected therewith, can understand with what delight the approaching summer is regarded by students; how the days, nay, the very hours, are counted which will release them from their labours, and take them to the green fields and the cool sylvan solitudes of the country.

Finally, if a student pass on any subject, I propose that he be not again required to submit to examination on the same subject; but if rejected he be examined again only on the subject or subjects on which he has been rejected. I do not see any reason why a student should be again examined on the subjects on which he has already passed a successful examination. Surely it would be very harsh and unfair.

To recapitulate briefly, my proposals are: (1) That the preliminary examination be entirely confined to Latin and Greek, and that the student be only required to translate a passage from a Latin and a Greek author. (2) That certificates of schoolmasters be received and accepted as sufficient for the ordinary branches of education, including algebra, mathematics, and mechanics. (3) That a knowledge of foreign languages be not required. (4) That failure to pass in Latin or Greek be not a bar to entering on medical study. (5) That the student pass the examination in Latin and Greek before going up to his first professional examination. (6) That no student be allowed to commence his medical studies till he is, at least, seventeen years of age. (7) That there be no examination in chemistry, botany, natural history, materia medica, and medical jurisprudence, but that certificates of attendance on lectures on these subjects be required. (8) That after passing the first professional examination two years of apprenticeship or pupilage to a general practitioner be required. (9) That the first professional examination be confined to anatomy and physiology. (10) That after the student's apprenticeship or pupilage he study for two years at a medical school or college. (11) That the pass examination be confined to surgery, practice of physic, and midwifery. (12) That a student be not required to submit again to examination on any subject on which he has already passed.

Kingussie.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI: *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CONTUSED FEMORAL ARTERY; OCCLUSION OF VESSEL; RECOVERY.

(Under the care of Mr. BRYANT.)

THOS. S——, aged thirty-five, a labourer, was admitted into the Accident ward on May 20th, 1880. He was admitted in a collapsed state, having been run over by a loaded coal-van. He was somewhat noisy during the night, but replied when spoken to. He did not remember anything until the next morning.

Next day there was, just below Poupart's ligament on the left side, a soft semi-elastic swelling, into which the finger could easily be sunk without any feeling of crepitation, causing him a little pain. The swelling did not pulsate. Above Poupart's ligament there was no swelling, and the hand could be pressed easily into the venter of the ilium. Just below the anterior and superior spine was a wound which had been sealed with compound tincture of benzoin. The whole limb was rather cold, and no pulsation could be felt in any of the arteries, including the superficial femoral. There was no œdema of the leg, and sensation was good and acute. The left external iliac artery could be felt one inch above Poupart's ligament. He could move the toes and ankle freely, and also slightly the knee, but this gave a little pain. He had passed his urine freely. It was clear there was no irregularity over the symphysis, and the spines were distinct on both sides. No fracture of the venter of the ilium. Manipulation could not be practised enough to totally negative injury to other parts of the pelvis. There were contusions in the temporal regions, but no fracture could be detected, and the patient was not sick. The limb was put up in cotton-wool.

On the 22nd he was not in much pain, and had no pain on micturition. The urine remained normal. The small wound below the anterior spine of the ilium was healing, and the swelling was not increasing. Pulsation was felt in the external iliac artery one inch above Poupart's ligament.

On the 23rd the limb was warm. No pulsation could be detected in any of the arteries below the injury. The swelling was subsiding, and the wound was nearly closed. Sensation was good.

On June 1st the swelling was circumscribed over the artery, and was very hard. There was no pulsation in the arteries; no œdema; urine and micturition natural.

On the 4th he complained of numbness over the upper third of the anterior end of the thigh; but this passed off in a few days, and the swelling subsided.

On the 23rd pulsation could be felt in the popliteal, and also in the posterior tibial arteries, and slightly in the femoral artery.

On July 2nd pulsation in the posterior tibial artery was 80, the same as in the radial.

On the 12th the patient got up, and on the 20th he left the hospital, using a stick for support. The hardness still remained. No pulsation could be felt in the limb, though it had its normal sensations.

DEPTFORD AND NEW-CROSS PROVIDENT DISPENSARY.

SYPHILITIC LARYNGITIS, CONGENITAL; DEATH FROM SPASM OF GLOTTIS.

(Under the care of Mr. BULL.)

HETTY G——, aged two years and ten months, was first seen on Oct. 23rd, 1880. She was a bright, intelligent-looking child, with large blue eyes, very prominent eyeballs, and pearly-white sclerotic, well nourished, and with a remarkably clear skin. The mother's family history was as follows:—She was married at Christmas, 1875, and was always strong until then, and, with the exception of a slight spinal curvature, the result of a fall, she never suffered from any severe illness. A month after marriage she found that there was "something wrong," and applied for relief at Guy's Hospital. She was there under the care of Dr. Galabin; was transferred by him to Mr. Golding-Bird, who treated her for primary syphilis. Her husband, to her knowledge, never had any open penile sore, but some six months before her marriage he had a bad sore-throat. The husband would not give any information on this point. She was pregnant when she was first seen by Mr. Golding-Bird, and bore a dead child at seven months, which, according to her nurse's account, was "putrid." A year later the patient, whose case is here recorded, was born at full term. She was always "hoarse" from her birth, and when she began to speak she did so in a harsh whisper, and with considerable effort. She fractured her humerus in 1879, this united in the usual way, and without any trouble. After this she was seen by a physician, who attributed her impairment of voice to shock. She never had sores or eruptions of any description, nor any scaly skin affection. The child born after the patient was apparently strong and free from taint; Hetty G—— had been treated at various times for chronic bronchitis.

On admission she was well nourished, quiet, and very nervous; skin clear; mouth and anus did not show traces of disease; abdomen and chest well-formed, and healthy. The voice was reduced to a harsh low whisper, even the most violent efforts did not produce any sound. There was no cough, but patient had occasional attacks of suffocation, generally towards morning. Appetite generally good, no difficulty in swallowing solids, sometimes "choked" a little over liquids. Inspiration more marked than expiration; except during paroxysms the muscles of respiration were not much affected. Owing to her restlessness it was not possible to get a satisfactory view of the larynx with the laryngoscope. Thirty minims of the solution of perchloride of mercury and five of perchloride of iron were prescribed; to be taken thrice daily. Mercurial ointment was rubbed into the neck, and inhalations of steam medicated with hops were used.

On November 20th there was perhaps a trifling change for the better.

On December 3rd iodide of potassium in three-grain doses was substituted for the iron. On the 17th there was iodism; patient was beginning to speak, but with considerable effort. Half-grain doses of quinine were given instead of the iodide of potassium. The paroxysms of suffocation were much less, and the patient had gained flesh.

Up to February 9th she went on well, although the paroxysms came on occasionally. Tracheotomy was advised, but declined by the mother. The child could speak plainly, and without very much effort, such sentences as "How are you, doctor?"

About April 9th she took cold, and her state soon began to cause the greatest anxiety. Tracheotomy was pressed but still declined. Inhalation of iodine, containing ten minims of tincture, was employed for ten minutes twice a day.

On May 3rd the voice had considerably improved. The child had had but two paroxysms in three weeks. A good view of the trachea was obtained. No mucous patches were seen about the glottis, the lower and back part of the pharynx was covered by a thickened puckered-looking membrane, and the same appearances were seen in the upper part of the larynx, involving the cords. The rima glottidis was much narrowed. The epiglottis looked as if it were eroded from ulceration which had healed; it was also covered with membrane.

About May 17th she was seen by Mr. Golding-Bird, who confirmed the diagnosis and approved the treatment. He also advised operative measures.

Matters progressed fairly well from this time. She was freer from paroxysms, but the mother stated that when paroxysms came on they lasted longer and were more severe.

On June 24th, at 4 A.M., the child awoke in a paroxysm, though not very severe; she drank a little water and then lay down apparently relieved. At 5 A.M. she had another and soon died.

Necropsy, thirty-six hours after death.—Throat only allowed to be examined. From the second ring of the trachea upwards extended a thick parchment-like membrane, involving all the parts as far as the epiglottis. This membrane was firmly attached, did not appear more elevated in one part than in another, and was conterminous with the mucous membrane, and organised. Its blood-supply appeared to be scanty.

Remarks by Mr. BULL.—I cannot call to mind any case of hereditary syphilis occurring in the practice of the late Mr. John Morgan of Dublin, under whom I studied, in which laryngitis was the *sole* manifestation of the disease; nor can I find a similar case recorded in any of the authorities which I have consulted. Generally one finds mucous patches about the mouth or anus; here they were absent. There was also an entire absence of the syphilitic cachexia. The third child, now eighteen months old, has shown no signs whatever of disease leading one to suppose that its force was expended on the other two. Had the parents consented to operative measures I believe the child would have been saved, and I think it is only fair to assume from the improvement which took place, that were rest given to the trachea the membrane would, under mercurial treatment, have been absorbed. The exophthalmos noted was due, I think, to the paroxysms. In conclusion, I have to thank Mr. Golding-Bird for supplying me with a note of the mother's case. The post-mortem examination was most unsatisfactory, but was the best that could be obtained under the circumstances.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

RESECTION OF WRIST-JOINT.

(Under the care of Mr. J. F. WEST.)

MARGARET B——, aged seventeen, servant, was first admitted as an in-patient on January 27th, 1880. Three years before she sprained her right wrist whilst lifting coals; a bandage and cold water were used. A year after this the wrist commenced to swell and to get very painful, and she soon afterwards was admitted as an in-patient at a neighbouring county infirmary. Counter-irritation and rest were used. Family history was good. When admitted into the Queen's Hospital the wrist-joint was swollen and tender. The muscles of the arm and hand were wasted.

Treatment: Tonics, good diet, immobilisation, and the actual cautery. Pus having been detected, it was evacuated under the carbolic spray, when the abscess cavity was found to communicate with carpal bones, and a probe detected a large extent of diseased bone. The cavity was syringed out every other day with solution of carbolic acid, 1 to 50, and a drainage-tube was inserted. As the discharge diminished, a starch case was applied, and the patient was sent out to recruit her health on March 11th.

She attended several times as an out-patient. The sores produced by the actual cautery remained very obstinate for some time, but at last healed, when she was admitted for the second time on September 20th. The patient was then a little better in health, but the joint was still discharging pus, and was disorganised.

On Sept. 22nd she was placed under ether. Esmarch's bandage was applied, and an incision on the radial side was made, commencing a little above the styloid process of the radius, and carried downwards along the back of the carpus, internal to the tendon of the extensor secundi internodii pollicis, and over the second metacarpal bone internal to

the same tendon, nearly to the head of that bone. The soft parts and tendons were detached from the bones, the trapezium was covered, and most of the carpal bones were removed. An incision was also made on the ulnar side, beginning two inches above the styloid process down to the lower third of the metacarpal bone of the little finger, and lying near the anterior edge of the ulna. Through these two incisions all the carpal bones were removed by means of cutting pliers and tooth forceps. The ends of the ulna and radius, and also of the metacarpal bones, were removed; the cavity was syringed with carbolic acid solution, 1 to 50. Two silver sutures were applied to each incision, and two drainage-tubes were run through from side to side, and antiseptic dressing was applied to the parts, and the hand placed on a splint and elevated. Milk diet. Evening temperature 102°; pulse 124; respiration 24. One-tenth of a grain of morphia was given subcutaneously.—On the 23rd the wound was syringed out. Temperature 103·6°. Great pain. The morphia injection was repeated.—On the 25th the wound was dressed again, and looked very much better. The sutures were removed. The wound was antiseptically dressed every two or three days, and it gradually improved.

On Oct. 4th the palm of the hand was placed over the wedge-shaped end of a splint without causing much pain, and passive movement of the fingers commenced.

On Nov. 22nd she could move the fingers a little, and without pain or difficulty. Discharge had almost ceased, and the patient's general health was good. She was allowed to go home.

On Dec. 9th she came up to the out-patient department, when the wounds were all but healed. The fingers and thumb could be readily moved by the patient. The muscles of the arm were greatly improved in size and strength.

Remarks by Mr. WEST.—The operation of resection of the wrist-joint was performed after the manner recommended by Professor Lister, by means of which no tendons are divided, and the various parts to be removed are got at with comparative ease. Rarely is so large an amount of bone disease met with as in this case, the whole of the carpal bones being extensively carious, and rarely is it necessary to take away the bases of all the metacarpal bones, as well as a good section of the lower ends of the radius and ulna. The use of Esmarch's bandage is specially indicated in this operation. It prevents hæmorrhage, and enables the operator to see the exact condition of the affected bones, and to get at them with much greater ease than is possible when blood is flowing freely, and altering the appearance of the parts, as it always does in operations of this sort when the Esmarch bandage is not used. The use of the stump forceps is of great service in elevating from their attachments the different carpal bones. Free drainage, antiseptic dressing, and immobilisation of the parts for three weeks brought the patient to a far better condition. Passive movement of the fingers and thumb was then commenced, the splint only reaching to the base of the phalanges, and by its use the case was conducted to a favourable issue, the patient being able to leave the hospital two months after the operation with a hand preserved in which there was some use. From the time when she came up as an out-patient, the power of motion in the fingers has been on the increase, and there appears to be but little doubt that the hand will, in the course of a few months, be a very serviceable member.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Relation of the Retinal Changes to the other Pathological Conditions of Bright's Disease.—Intra-ocular Tumour followed by Death Six Years after Enucleation.—Central Amblyopia in a Smoker, with Diabetes.—Hemeralopia, with Peculiar Appearances in the Conjunctiva.—Vaccinal Ophthalmia.—Multiple Growths on the Irides.

AT the annual general meeting of this Society, on the 6th inst., W. Bowman, Esq., F.R.S., President, in the chair, a paper was read on "The Relation of the Retinal Changes to the other Pathological Conditions of Bright's Disease," by Drs. BRAILEY and EDMUNDS. In chronic Bright's disease there is (as has often been described) a hypertrophy of the walls of the arteries throughout the body, especially affecting the middle and outer coats. In addition to this, in the kidney and in the well-known white opaque patches of the retina there is a thickening of the intima, leading to an occlusion of the majority of the arteries of the part. This condition is accompanied in each organ by degenerative and inflammatory changes, the former affecting in the kidney the epithelial cells of the tubules, and in the retina the nerve cells, nerve fibres, and Müller's fibres. The authors believe this affection of the arteries to be an exaggeration of the endarteritis so often observed in the larger trunks of the body generally, where it gives rise to atheromatous patches, and that it precedes and gives rise to the other inflammatory and degenerative changes encountered in the kidney and retina.—Mr. POWER remarked upon the rapidity with which the white patches appear upon the retina, and instanced the case of a boy suffering from albuminuria in whom large white patches appeared within three days.—Dr. S. MACKENZIE pointed out that the authors' conclusions agreed with those of Sir W. Gull and Dr. Sutton—viz., that there is a primary vascular change emphasised in the kidney, but not dependent on the renal condition. He had seen a few cases where the other lesions—hypertrophy of heart, thickened vessels, atrophied spleen—existed, but no renal disease. Was there actual hypertrophy of the middle coat found by Dr. Brailey?—Dr. BRAILEY replied that the muscular coat was thickened universally, and contained many nuclei. When the intima was thick it was difficult to discriminate the middle coat.

Mr. MULES (Manchester) showed some new instruments—viz., (1) improved scissors for enucleation, and (2) needle-forceps for corneal suture; also some specimens of vitreous, normal and pathological, mounted in glycerine jelly.

Mr. SPENCER WATSON read notes of a case of Intra-ocular Tumour followed by death six years after enucleation of the diseased eye. Ellen S——, a girl, six years of age, came under observation in 1875 with a staphyloma of the left eye, which burst under the pressure of introducing the eye-speculum. When the enucleated eyeball was examined a tumour, which seemed to be a sarcoma of the choroid, was discovered. The child remained tolerably well for about six years, though a discharge continued to escape from the socket of the enucleated eye. In May of the present year, however, cerebral symptoms came on after a prolonged period of listlessness, extending over some months. The child died after a few days' illness in a comatose condition, after paralytic affection of the muscles of the remaining eye. It is clear that some intracranial disease was here present, but whether it was extension from the focus of the original disease is hardly satisfactorily proved. There was a very suspicious discharge from the socket of the eye, and this makes it probable that orbital and subsequently intracranial disease was present—disease which had originated in the choroid of the enucleated eye.

Notes of a case of Central Amblyopia in a smoker, with Diabetes, microscopical examination of optic nerve, by Mr. NETTLESHIP and Dr. WALTER EDMUNDS, were read. The symptoms were exactly those of tobacco amblyopia; the man was told to leave off smoking, but did not do so. His eye symptoms remained about the same until death from diabetes. A tract of chronic inflammation and degeneration was found, extending the whole length of the optic nerve, the rest of the nerve being healthy. The question of whether the disease was in this case due to tobacco or to diabetes was left open. A similar case had since been seen in a diabetic patient who did not smoke.—Dr. STEPHEN MACKENZIE had lately seen amblyopia in a diabetic smoker, which had improved when he left off the use of tobacco.

A paper by Mr. SIMEON SNELL (of Sheffield) was read on Hemeralopia, with peculiar appearances in the Conjunctiva. Examples were related of cases of night-blindness, associated with "patches" on the conjunctiva. Several such had been observed, occurring always in children and in the spring and early summer; each year bringing its quota. The patches were situated in the palpebral fissure, on the outer side of the cornea, and frequently the inner side as well; the surface of the spots was frothy-looking and the conjunctiva underneath was thickened. These patches were constant; began with the nocturnal affection and disappeared as vision improved. The cases had presented themselves from districts of a large radius round Sheffield. The fundi oculorum were normal. The form of disorder appeared to be acute simple hemeralopia. Bitot and Netter had described associated conjunctival disorder with night-

blindness, and so had Soelberg Wells, in cases exposed to a burning sun. The cases rapidly improved under cod-liver oil.

Notes of a case of Vaccinal Ophthalmia, by Dr. KNAGGS (of Newcastle, New South Wales), were communicated by Mr. Swanzy. An unvaccinated woman was inoculated in the left conjunctiva oculi, and on the same side of the nose by the finger-nail of her infant on the eighth day after its vaccination; on the nose she had a normal vaccine vesicle. The ocular symptoms consisted of very severe swelling of lids and chemosis, with muco-purulent discharge, and finally keratitis with hypopyon; the pain and irritative symptoms were very severe. A fair recovery ensued.—Mr. ANDERSON CRITCHETT referred to an interesting case he had published of a medical man who was very myopic, and whose elbow was jogged whilst vaccinating a child. The lancet entered the eye, and a well-marked vaccine pustule appeared at the corneo-sclerotic margin. On the ninth day there was hypopyon, which became reabsorbed, and a corneal leucoma developed. Finally an artificial pupil was made.

Mr. NETTLESHIP and Dr. T. WEBSTER FOX related the sequel to a case of Multiple Growths on the Irides. The patient, a girl of thirteen, was shown at the October meeting with double iritis and a large pinkish growth on the left iris. This growth was afterwards partially removed, but again increased, and, finally, the eye was excised. In the meantime similar growths began in the other eye, and have since so increased as now to occupy nearly all the anterior chamber. Examination of the excised eye showed confluent nodules of growth in the ciliary body and upon the iris, the chief mass being as large as two or three small peas. The structure was of small cells of two types, round and elongated with long nuclei; no giant cells and no reticulum. There were no vessels in the growth, and cheesy degeneration was always present at the centre of the nodules. The case belongs to the group described as "granuloma iridis," and sometimes as "tubercular disease of the iris."—Mr. WALKER had nearly always one case of this kind under his care, and found that the growths subside after some months' stay in hospital. One case was in hospital nearly a year, and afterwards returned with a recurrence of the disease.

Mr. MCHARDY exhibited some handy improved Electro-magnets for the removal of fragments of iron from the eye. He also showed a case of Persistent Hyaloid Artery.

CAMBRIDGE MEDICAL SOCIETY.

Calcification of Pericardium.—Melanotic Growth on Upper Lip.—Loose Cartilages from the Knee.—Adult Hydrocephalous Brain, with Cyst under Cerebellum.—Glomerulo-nephritis.

AT the meeting of the Society on Friday, the 1st July, Mr. James Carter, F.R.C.S., Vice-President, in the Chair,

Dr. LATHAM showed a Heart in which the right ventricle was closely invested by a hard and thick case formed of the calcified pericardium. The patient, a man aged sixty, had been twice in Addenbrooke's Hospital with dyspnœa, cough, hæmoptysis, and enlargement of the liver and spleen. There was a history of a rheumatic attack at the age of twenty-one, and of palpitation and dyspnœa ever since. Ten months before admission he began to emaciate and to suffer from constant cough, with hæmoptysis. On admission he was considerably emaciated, and expectorated blood every time he coughed. The right chest was dull all over, before and behind; abundant fine crepitation. Left chest resonant and breathing good. Liver much enlarged, reaching the level of the umbilicus; spleen also enlarged. Heart's action very irregular, cardiac dulness not increased. On his second admission constant slight dyspnœa, troublesome cough, with blood-stained expectoration. Much œdema of the legs, and of abdominal walls and external genitals. Lower half of chest on both sides posteriorly was absolutely dull; coarse rattling râles on right side; medium crepitation on left. No cardiac murmur, but sounds reduplicated, giving a quadruple cantering sound. Dilatation and pulsation of jugular veins. Post mortem the left chest contained a pint of straw-coloured fluid, the right pleural cavity obliterated by dense adhesions. Both lungs showed a remarkable degree of brown induration. In front of the heart and around the sharp margin of right ventricle the pericardium was changed into a uniform hard osseous or calcareous case, of such thickness and hardness, and so closely united to the substance of the right ventricle, that the latter cavity had to be opened (from the apex) with a saw. A similar calcareous or callous condition of the pericardium extended to the base of the heart, and included the region of the right auricle and partly of the left auricle, and of the ascending part of the aortic arch. All the valves were healthy and competent, except that the tricuspid orifice was much dilated. The liver was enlarged, surface irregular, capsule thickened. The spleen weighed sixteen ounces, firm in substance; kidneys congested. The symptoms, which had some resemblance to those of mitral regurgitation, were explained by the state of the pericardium on the right side; it was changed into a rigid osseous box, with which the substance of the right ventricle was intimately blended. The latter was therefore unable to contract and expel its blood fully, and hence, as well as from incompetence of the tricuspid, the venous congestion giving rise to the train of symptoms above described.

Dr. HUMPHRY showed a small Melanotic Growth, which he had that day removed from the upper lip of a man aged sixty-two, who looked the picture of health. It was a small black tuberculated spot in the mucous membrane of the lip, slightly raised, firm, and bleeding easily. He had not seen anything of the kind before in or about the mouth. This was an instance of a malady, the most malignant of all maladies, fixing itself upon a perfectly healthy man, in one isolated spot, where it might remain quiescent for a number of years. The melanotic speck then spreads a little, and is cut out; then the lymphatic glands enlarge, and melanotic growths appear in all parts of the body—in the viscera, in the membranes of the spinal cord, and elsewhere. He had in this case removed the growth quite freely; still he could not but fear that it might return somewhere.

Dr. HUMPHRY showed, also, several specimens of Loose Cartilages removed from the Knee-joint. The first of these was from a man aged sixty-three. As a boy he had felt something wrong on the inner side of the knee; the knee used to kink, and he felt something slip in and out. About twenty years ago something gave way with a snap over the same spot, and there was no more kinking from that time, but he became conscious of a body slipping about in his knee. Two years ago a body definitely appeared in the upper part of the joint, and he (Dr. Humphry) removed it. It was pear-shaped, upwards of an inch long, composed of hyaline cartilage on the surface and of osseous substance (showing bone corpuscles) in the interior, the zone of cartilage cells next to the osseous tissue displaying that columnar arrangement which is found in growing bone. In this case it was evident from the history given that there had been something wrong from boyhood; perhaps a polypous formation growing from the inner interarticular cartilage. It had probably increased in size after it had broken off from its original attachment. In another specimen which he exhibited there was bone on one side and cartilage on the other, as in a remarkable specimen, like a patella, in the College of Surgeons Museum. Such specimens, showing the structure of true bone and of true cartilage, were often explained as being detached pieces of the articular ends of the bones, either of the condyle of the femur or of the head of the tibia. But it is almost inconceivable that such a fracture should take place. As a formation from the synovial fringes, it had probably lain for a long time in some snug corner of the joint, and had got at length suddenly dislodged. There is sometimes a cavity in the articular cartilage, or extending into the osseous tissue itself, of a size and shape corresponding to those of the loose body, and the inference is sometimes drawn that the cavity is the hole or gap caused by the breaking off of a fragment. But there are museum specimens which clearly show that such excavations are due to absorption of the articular ends of the bone caused by pressure of the loose body. The explanation of cartilaginous and osseous formations from the fringes of synovial membrane is probably to be found in the histological fact that the latter not unfrequently contain cartilage cells among their normal elements. In operating for loose cartilages, it was his practice to keep the limb on a splint for several days previously, so as to accustom it to a motionless state, and to operate with the limb still on the splint. Since the introduction of antiseptic precautions, a surgeon might use much more freedom than formerly in scooping out loose bodies from the knee.

Dr. ANNINGSON showed a preparation of the Hydro-

cephalous Brain of an adult woman, who had been an inmate of Fulbourn Lunatic Asylum. The unique feature of the case was the co-existence of a remarkable membranous closed sac, of the capacity of about two ounces, lying under the cerebellum on the right side. He was inclined to think that the sac might be of a lymphatic nature, an over-developed lymphatic sinus.

MR. SHANN exhibited microscopic specimens and a drawing, which he had made from a case some two years ago; he produced them now because they were exactly confirmatory of the view lately expressed by Dr. Leech of Manchester, of a new formation of tissue on the inner wall of the glomerular capsule in certain morbid states of the kidney. His case was one of scarlatinal nephritis in a patient aged fourteen. Besides tubal and interstitial nephritis, there was a zone of new-formed tissue in many of the glomeruli, which had grown from the epithelium on the inner surface of Bowman's capsule and formed a circular belt of tissue like young connective tissue, surrounding and compressing the tuft of blood-vessels. The existence of that additional glomerular affection helped to account for the peculiar feature of some cases of scarlatinal nephritis—viz., the almost complete suppression of urine.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

THE nineteenth annual meeting of this Society was held in the Infirmary on Tuesday evening, June 14th, 1881. The report reviewed the work of the session, and was regarded as highly satisfactory. The following gentlemen were elected as officers for the ensuing year:—President: J. Craig, M.D. Treasurer: T. C. Denby. Secretary: D. Goyder, M.D. Committee: Messrs. J. Appleyard, M.B., H. Butterfield, W. H. Ellis, and S. C. Hirst. Pathologists: Messrs. J. Appleyard and T. Wilmot. Auditors: J. Dunlop, M.D., and S. C. Hirst.

The following is an extract from the Annual Report:—

"*Commission on Woolsorters' Diseases.*

"The Society is aware that a Commission from the members and others was formed during the autumn of last year to investigate the whole question of woolsorters' diseases, with a view to the discovery of the nature of the infective poison, and for the suggestion of the remedies best calculated to combat and prevent the disease. The Commission met eighteen times, and a considerable mass of information respecting cases &c. has come before it. It must be said that the opinion of the members of the Commission is as yet divided as to the true nature of the poison producing so-called woolsorters' disease, though it is admitted by all that there is a virulent infective agent at work. Nor until a unanimous, or almost unanimous, conclusion can be arrived at respecting this is it the intention of the Commission to issue a decisive report upon the subject. Meanwhile the members have determined to pursue their labours till they realise the end in view. Many interesting points and collateral issues have arisen during the prosecution of the inquiry, not the least of which is the discovery that bacteria are present in other diseases beside that of woolsorters, both in the blood and tissues of human beings and animals, and if not before, at least immediately after, death; and, furthermore, that they are found in the fluids of healthy animals killed for the purpose of ascertaining this point, and that, too, so immediately after death as to lend the strongest probability to the opinion that they may exist in the healthy tissues during life; for in one instance they were found within half an hour after the animal was killed, and thus before decomposition could possibly have set in. Of course, the great point for determination is whether a sufficiently marked distinction exists between what is called the bacterium bacillus anthracis and other bacteria; this point remains for decision, and there appears at present no reason to doubt that a satisfactory solution will be arrived at.

"One duty the Commission has thought it advisable to fulfil at once, which is to communicate to employers of woolsorters and other workers in wool the necessity of some decisive effort to prevent infected material from entering their premises at all; such a rule, for example, as requiring their agents abroad and at home to exclude all fallen and suspected fleeces from the bales of wool, whether that be of foreign, colonial, or home growth. Such a rule would at least strike at the root of the mischief, so far as woolsorters and woolworkers are concerned, and be the best measure of prevention which can be suggested in the meantime."

Reviews and Notices of Books.

The Natural Conditions of Existence, as they affect Animal Life. By KARL SEMPER. Vol. XXXI. of the International Scientific Series. London: Kegan Paul & Co. 1881, pp. 472.

THE preface to this work explains very precisely its object: "It was Jäger who once said—but I forget where—that enough had been done in the way of philosophising by Darwinists, and that the task that now lay before us was to apply the test of exact investigation to the hypotheses we had laid down." This task Professor Semper endeavours to accomplish. He points out that it is much more easy to form a fanciful idea as to how this or that fact may be hypothetically explained than to prove it, and that very little trouble is needed to imagine some process by which hypothetical fundamental causes, equally fanciful, may have led to the result which has been actually observed. But when we try to prove by experiment that this imaginary process of development is indeed the true and inevitable one much time and laborious research are indispensable, or we find ourselves wrecked on insurmountable difficulties. It is easy for one party to state that the vertebrata present such analogies to the ascidians that there is strong reason to believe that they are derived from them, and equally easy for another party to maintain that the relations of the vertebrata to the annelida are such as to favour the view that the phylogeny of the vertebrates must be traced through them; but in both instances it is a pure matter of theory, and neither can adduce facts that are at all convincing—neither can show the intermediate stages or demonstrate the successive phases that must have occurred.

As a means of applying the theory of evolution, or rather, perhaps, of testing its validity, Professor Semper insists on the importance of distinguishing between the influence of heredity and of adaptation, between those characters which have been preserved by transmission through countless generations of apparently very different and yet nearly allied species, and those characters of adaptation which now and then arise, as it would seem quite arbitrarily, and beyond a doubt quite independently of the affinities of animals.

As an example of the importance of distinguishing between these two causes of the variety of morphological characters in the animal kingdom, the author selects the respiratory apparatus. Respiratory organs of considerable complexity, and not essentially different in construction, exist in mammals, birds, reptiles, many mollusca, and some crustaceans; but if a zoologist endeavoured to prove that all animals which have organs adapted to respire air must therefore be closely allied, his attempt would be hopelessly futile. The lungs of vertebrata are connected with the intestinal canal and developed from it, whilst those of mollusca and crustaceans are nothing more than cavities in the side, which have originated in an invagination of the outer skin. But an organ which, like the lungs of mammals and birds, arises from the intestinal canal, can never have originated in a modification of the outer skin or epidermis. This proves, he adds, that the lungs of different groups of animals must have originated independently of each other, and that we are justified in regarding them as, in some degree, characters of adaptation. A similar conclusion may be drawn from the study and comparison of the forelimbs of mammals with the wings of birds, the fins of fishes, and the corresponding instruments of locomotion of other animals.

But whilst in the larger groups of animals the characters of adaptation are of little value in determining affinities, they

become of immense value when applied to an order or a family, because they have then become hereditary characters, and indicate the origin from a common stock of all that possess them; yet they may have undergone considerable modification, and may even have become subservient to other functions; and they are the more likely to undergo modification if, as in the case just mentioned of the gills or lungs, and locomotive organs, their fundamental character be such as must induce specialisation of function. But once specialised—that is, the better adapted for the discharge of a single purpose—the harder it will be for them to adapt themselves to new purposes, and so it will, probably, be transmitted to the descendants of the parent form but little altered.

Professor Semper, speaking of rudimentary and useless organs, refers to the various forms of sculpturing found on the scales of many reptiles which are highly characteristic of the different species. These sculpturings are microscopic and much too delicate to be visible to other animals of their own species. Now, the casting of the skin is induced in reptiles by the formation on the surface of the inner epidermis of a layer of very fine and equally distributed hairs, which by their rigidity and position evidently serve the purpose of mechanically raising the old skin. The same development of casting hairs is met with, fulfilling the same purpose, in the river cray-fish, and it is remarkable that in both animals these hairs are partly transformed into the concentric stripes, sharp spikes, ridges, or warts which ornament the outer edges of the skin-scales of reptiles or the carapace of crabs. Hence he regards the sculpture thus produced as a rudimentary organ, for after fulfilling their purpose they remain unaltered and without further visible use. Occasionally, however, they are transformed into special organs, like that which von Leydig discovered in certain reptiles, and which he designated as organs of a sixth sense, in which long elastic hairs project far beyond the surface, and are apparently highly sensitive.

The author then goes on to show the influence of external agents in exerting a *transforming* influence upon animals, a subject which he thinks has been passed over too lightly by Darwin, who has dwelt rather upon the influence of selection. He shows the influence of food, its quantity and variety, of light, heat, stagnant water, and still air; moving water, and the reciprocal influence of other living beings. Each of these causes of modification is worked up into a chapter, and receives a multitude of illustrations. We have space for only one. Speaking of the influence restriction to particular kinds of food has upon the alimentary organs, he refers to the absence of teeth or masticatory instruments in the bird, and its replacement by the gizzard, and adds that a still more striking illustration of the fact that special organs, calculated for a single kind of food, sometimes appear under very unexpected aspects, such as by all school theories would be pronounced impossible, and which is afforded by the genus Dasypeltis among the snakes. Members of this species occur in Africa, and live on bird's eggs. Now, if the snake were to crush it by its teeth and jaws it would certainly lose the greater part of its fluid contents. The only way to avoid this is to swallow it whole, and it in fact does reach the stomach unbroken. But those organs have developed in a most marvellous way, organs which in all other cases, without exception, are confined to the bones of the head—namely, teeth. These occur firmly set on the lower side of the vertebræ and in the fore part of the stomach, and their points pierce the coat of the stomach just so far as to seem purposely fitted for breaking the eggs passing through it. The development of these teeth must be referred to the propensity of the species of Dasypeltis to make the eggs of birds their exclusive food.

The volume is a very interesting one, and is a valuable addition to the series.

The Student's Manual of Histology, for the use of Students, Practitioners, and Microscopists. By CHARLES H. STOWELL, M.D. Illustrated with 192 Engravings. Detroit: George S. Davis. 1881.

WE regret we are unable to recommend this book either to the student, the physician, or the histologist; certainly not to the student, for the statements made are in various instances incorrect, and in a work designed as an instructor accuracy is of the greatest importance. At page 82 we meet with the remarkable statement that bone-corpuscles are lacunæ, with long branches, which are canaliculi, and this erroneous and confusing statement is repeated on a subsequent page. The pancreas, again, is very imperfectly described, and its cells are said to resemble those of the parotid gland. The Malpighian corpuscles of the spleen are stated to be the result of transformations of the external connective tissue coat of the small arteries—an old view which has lately been discarded in favour of the theory that these bodies are simply more condensed portions of the spleen pulp. Examples of this kind could easily be multiplied.

Dr. Stowell lays great stress upon the way in which the book is got up. We are sorry we cannot agree with him, for the woodcuts are, for the most part, badly reproduced, and the type, especially in the explanation of the figures, is very poor.

The Anatomist; being a complete Description of the Anatomy of the Human Body. Intended for the use of Students preparing for Examination at the Royal College of Surgeons, and other Medical Bodies. By M. W. HILLES. Second Edition. London: Henry Renshaw.

"ITS success has proved its usefulness." Such is the author's statement. What room then is there for a reviewer's criticism? But having scanned this "complete description of the Anatomy of the Human Body" in 360 32mo pages, it is obvious that if students rely upon this book they will probably meet with rejection at any anatomical examination. We know not whether it is more misleading to students or to examiners, for it is in great part a compendium of errors. We will give a few examples taken at random, which will at once show our ground for such an assertion. On the first page we read that the scalp is composed of the skin, occipito-frontalis muscle, and the periosteum. In this short statement there are only five mistakes! The periosteum is *not* a part of the scalp; and in all the scalps we have dissected or heard of, a tough subcutaneous fascia, bloodvessels, nerves, and lymphatics have been present. On page 2 no mention is made of the great occipital nerve as one of those of the scalp. On page 3 we read, "The following four m. [muscles] arise in succession from the inner canth." [canthus]: they are the levator communis, levator labii proprius, zygomaticus minor and the zygomaticus major. On page 22 occur the following: "The *upper opening* of the larynx, or *glottis*"—"the *lower opening*, or *rima glottidis*." On page 114 we read, "The spermatic art. ascends (*sic*) to its origin from the renal, the veins to the renal veins, and the nerves to the renal plexus and sympathetic nerve." Even the insertion of the gluteus maximus is given incorrectly. These are Mr. Hilles' words, "*Ins.* by a flat thick tendon into an irregular longitudinal surface, leading from the great trochanter to the linea aspera of the femur, and into the fascia lata just below." We are familiar with many of the diagrams, which have been copied from the works of anatomists, and they are therefore accurate, and should the "success" of this edition, lead the publisher to ask Mr. Hilles to write a third edition, we trust he will borrow his text from the same excellent sources.

EPIDEMIC diseases are reported from Cuba. Havannah reports last week state that there had been 23 deaths from yellow fever and 15 from small-pox.

"THE LANCET" INQUIRY UPON SCHOOL MANAGEMENT AND HYGIENE.

PRELIMINARY REPORT.—PART II.

IN completing the analysis of the replies to the questions circulated amongst the schools, there remain for consideration the highly important subjects of work and play, sleep and diet, which are embraced in Queries 5 and 6 of the circular (see THE LANCET of July 2nd, p. 21). We pass, in fact, from the general surroundings of the schoolboy, the locality of his school, the nature of its buildings and their sanitary provisions, to the routine life of the lad during his residence; and although again it may be urged that the information before us is limited as to its scope, it may be pointed out that the comparison between the different schools which form the basis of this report exhibits quite a considerable and unlooked for diversity in detail. For although in the gross number of hours allotted to work and to play respectively there is a fair approximation to unity, yet the manner in which the periods of school-work are distributed, especially in relation to the hours for taking meals and those for recreation, is most varied. In order that these differences may be appreciated the replies furnished under the head of Query 6 have been arranged in a tabular form (Table B). With reference to part of Query 5, as to the distribution of meals, only twenty-two out of the thirty-nine correspondents supply sufficient information for the construction of a complete "time-table" of this sort; but as almost all state the distribution of meals and give the sum of the time daily devoted to work and play, none have been excluded from this table. In referring to it the reader should bear in mind the usual daily routine of school life. Between the period of rising and the breakfast there is generally about an hour devoted to school-work, of the nature of preparation for the lessons of the day. A short interval of recreation occurs between the breakfast hour and the commencement of "morning school," which is conducted apparently on two methods. On the one the work is continuous (with, perhaps, a ten minutes' interval or break for luncheon) to within an hour or so before dinner time, when the morning recreation is taken. On the other the school time is divided into two equal portions, with an hour's interval between them for recreation, instead of the hour immediately before dinner. A similar diversity obtains with regard to the division of the afternoon. In some it will be found that there is a long recreation period between dinner and afternoon school, which then follows without a break to tea time. In others work is commenced shortly after dinner, and continued to within an hour or two of tea time, when the chief period for recreation occurs. It will be seen that in a few schools the former plan is adopted in winter, the latter in summer. Lastly, after tea an hour or more is devoted to evening work; the rest of the time between that meal and the hour for retiring to rest being occupied in recreation. A typical plan of the day's doings might be given, then, as follows:—Rise at 6.30 A.M.; early school 7 to 8 A.M.; breakfast at 8 A.M.; morning school (1st part) 9 to 10.30 A.M.; (2nd part) 11.30 A.M. to 1 P.M.; dinner at 1 P.M.; afternoon school 3.30 P.M. to 6 P.M.; tea at 6 P.M.; an evening school (or "preparation") from 7 to 8 P.M.; bedtime 9 P.M. Such a plan allows seven hours and a half to school work, five hours to recreation, and about nine hours and a half to sleep, allowing half an hour for each of the three chief meals in the day.

The actual facts obtaining at the schools before us, showing several variations from the above, next claim our attention.

1. *The hour of rising* is, in three schools, fixed at 6 A.M.; in sixteen at 6.30 A.M.; in seven, at 7 A.M.; in nine at 7.30 A.M.; and in one at 8 A.M. Three give no information on the point. In a few there is stated to be a difference of half an hour to one hour between the winter and summer months in this respect.

2. *The hour for retiring to rest* is given at about 8 P.M. in seven of the schools; at 8.30 P.M. in nine; at 9 P.M. in eighteen; at 9.30 P.M. in one, and at 10.30 P.M. in one; three affording no information. In some the senior pupils retire half an hour to one hour later than the others.

3. It will be observed that the *chief meals* are distributed as follow:—Breakfast at 8 o'clock or 8.30 A.M.; dinner at 1 or 1.30 P.M.; tea at 5.30 or 6 P.M.; the most marked variations from these hours being a dinner hour at 3 P.M. in two cases, and at 5 P.M. in one.

4. *School hours.*—(a) *Early school:* In nine the hour of rising is too late to admit of any time being given to early school; in six there is about half an hour so devoted; in fifteen there is one hour; and in four there is as much as one hour and a half. (Five give no information.) (b) *Morning school* (see Table C): Between the breakfast and dinner hours there intervenes a period of from four to five hours, or even five hours and a half, of which from three hours and a half to four hours are given to school work. Out of the twenty-two schools giving information on this point there are four which allow an hour immediately following breakfast before the school work is commenced, and it is then pursued (perhaps with a slight break for luncheon) almost to the dinner hour. In the majority it is calculated that half an hour elapses between breakfast and school, but in only a few is this long stretch of work (three hours) divided by a period of complete relaxation, as indicated in the typical plan sketched out above. In the large majority the work is continuous, breaking off within an hour or less of dinner time. This is so clearly seen in Table C that no more need be said of it in a report which simply aims at the statement of facts; but attention may be especially invited to No. 34 on the list, where the return gives five hours' work at a stretch—viz., between 10 A.M. and 3 P.M; nearly as extreme are Nos. 13 and 30—which devote four hours (with short intermediate interval for luncheon) to this morning work, the number of boys in these schools being fourteen, fifty-four, and twenty respectively. (c) *Afternoon school:* The time devoted to this is an hour or even more than that less than the morning work, for it is in the afternoon that the chief recreation takes place in all the schools, the whole interval between dinner and tea varying from three to five hours, or about four and a half on an average. The work commences immediately after dinner in one school (No. 36); within an hour after in eleven (in four of these in summer only); in from one to two hours in five (in one in winter only); in from two hours to two and a half in eight

TABLE C.—SHOWING TIME DEVOTED TO WORK AND RECREATION BETWEEN BREAKFAST AND DINNER.

No.	Total Period.	Recreation before School.	School.	Recreation after School.
	Hours.	Hours.	Hours.	Hours.
1	4½ or 5	½	3½ *a*	½
2	4½	1	3	½
4	4	½	3½	½
5	4	½	3	½
6	4½	None	3½ *b*	½
7	4½	½	2¾ *a*	1½
9	4½	½	3	1
10	4½	½	3 or 4	1½ or ½
11	4½	½	3½	½
13	4½	½	4 *c*	None
16	4½	½	2 *d*	1
18	4½	½	3	1
19	4½	½	3½	½
22	5	1	3	1
23	4½	½	3 *e*	1
24	4	10 minutes	3	1
26	5	½	3½ *e*	1
27	5	½	3½	1½
29	5	½	3¾ *a*	¾
30	4½	½	4 *e*	None
33	5	1	2½	1½
34	5½	½	5	None
36	5½ or 4½	1½ or ½	3	1
39	4½	½	4	None

a With break of fifteen minutes. *d* With break of one hour.
b With break of half an hour. *e* With break of ten minutes.
c With break of twenty minutes.

TABLE B.

TIME-TABLE OF HOURS OF MEALS, SCHOOL-WORK, RECREATION, &c.

——	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Hour of Rising:—Summer..	6.30	6.30	6.30	7	6.30	7	6	7.30	Not given	7.30	(?)	..	6	6.30 or 7.15	7.30	6.30	8	7.30	7	6.30
,, Winter ..	7.30	..	..	7.30	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7.30
Early School:—Summer..	7 to 8	7 to 8	7 to 8	7.30 to 8.30	7 to 8.30	7.30 to 8	6.30 to 7.45	..	About 1 hour	..	(?)	..	6.30 to 7.45	..	..	7 to 8	..	..	..	7 to 8 for some
,, Winter ..	..	..	..	..	7.30 to 8.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Breakfast	8	8	8	8	8.30	8.30	8.15	8.15	8	8	8	8	8	8	8	8	8.30	8	8	8.15
Morning School	9.15 to 11 11 to 1	9.30 to 12.30	..	9.15 to 12.45	9.30 to 12.30, or 1 (2 days)[1]	9 to 11 11.30 to 1	9 to 10.30 & 10.45 to 12	3½ hs.	9 to 12	9 to 12 or 1	9 to 12.30	..	9 to 10.50 and 11.10 to 1	..	11.10 lunch	9 to 10 11 to 12	..	9 to 12	9 to 12.30	9.30 to 12 12.30 lunch
Dinner	1 or 1.30	12.45 or 1.45	3, or 1 P.M. twice a week	1	1	1.15	1.30	1.15	1	1.15	1.15	1.15	1	1.30	1.30	1	1	1	1	5
Afternoon School	4 to 6	3.30 to 5.30	..	3.30 to 4.30	2 to 4 (S) 2.30 to 5.30 (W)	2.30 to 4 30 (S) 3.30 to 5.30 (W)	3.30 to 6 (int. of 10 min. at 5)	1 h. wk. 3 afternoons	3 to 5	2 to 4 (S) 4 to 6.30 (W)	3 to 5.30	..	4 to 5.50 & 6 to 6.55	..	..	2 to 3.30 (S), 3.30 to 5 (W)	..	2 to 4	2 to 4	1.30-2.30 6.30-7.30
Tea	6	6.30	6	6	6	6	6	5	5	6.30	6	6	7	5.30	5.30	5.45	6	6	5.30	7.30
Evening School	7 to 8.45 or 7.30 to 10	7.15 to 8.40, & 9 to 10	..	7 to 8.30	6.30 to 8.15	7 to 8 & 7 to 9; break of ½ h.	(?)	2½, from 5.30	2 hours	7.30 to 9	2 & 3 h. prepn.; time not stated	..	None	..	..	6.15 to 8	..	7 to 8.30	6.30 to 8.40	8 to 9
Supper	8.45	8.45	9	8.30	8.30	9	8.15	9	8	9	8	8.30	..	8.30	7	..	9.30	8.30	8.45	Sat. 9.15
Bedtime	8.45 or 10[2]	..	9	9	8.30	9.15 & 10.15[2]	8.30 9.30[2]	9.30	Not given	9 & 10[2]	(?)	9 & 10[2]	8.30	8	8.30 & 9[2]	8	10.30	9 & 10[2]	9	9.15 & 11[2]
Hours devoted to School ..	8½ or 9 (S)	8½ & 9½	7½	6 or 7 (S)	8½ (S), 7½ (W)	7 & 7½	About 8	7	7	6½ or 7½	7½ & 8½	7½ & 8½	6½	7	5½	5½	7½	6½	7½	5½ or 6½
,, Recreation[3]	2½	Abt. 3	Abt. 3	4	4	3	2½	About 4	3 to 4 h.	About 4	3	3½	5	5	4½	4 (S), 2½ (W)	5	3	3	4½
,, Sleep[4] ..	9½ to 10	9½	9½	10	10	9½ & 8½	9½ & 8½	10	(?)	10½ or 9½	(?)	..	9	10	10½ & 10	10	10	10 & 9	9½	9 or 10

——	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Hour of Rising:—Summer..	7.30	6.30	6.30	7	7	7.30	6.30	7.30	7	6.30	6.30	6.30	6.30	..	6.30	6	6.30	7.30	7
,, Winter ..	..	..	..	..	..	..	..	..	..	..	7.30	7	7	7	..	6.30	..	..	..
Early School:—Summer..	..	..	7 to 8	7½ to 8½	..	..	7 to 8	..	..	7 to 8	..	..	7 to 8	..	..	6.30 to 7	..	..	..
,, Winter ..	..	..	..	..	..	..	..	..	..	..	..	..	7.30 to 8.30	7.30 to 9	..	7 to 8	..	..	..
Breakfast	8	7.30	8	8.30	8	8	8	8	7.30	8	(?)	7.30	8	9	8	7 or 8	8	(?)	8
Morning School	..	9 to 12	9 to 12, with 10 min. interval	9.10 to 12	..	9 to 11, 11.15 to 12.15 11 lunch	9 to 12.15	..	8.30 to 10.30, 10.45 to 12.15 11 lunch	9 to 1 11 lunch	..	..	9.30 to 12	10 to 3	..	9 to 12	..	..	9 to 12.50
Dinner	1.15	1	(?)	1	1.30	1.30	1.30	1	1	1	(?)	12.15	1.30	3	1	1	1	(?)	1
Afternoon School	..	2 to 4.15	2 to 4.30	2 to 4.30	..	4 to 6	3.15 to 5	..	2.30 to 4.30	2 to 4.30	..	..	2.30 to 5	..	..	1.30 to 4.15	..	..	2 to 3
Tea	5.45	6	(?)	5	5.15	6	5 or 5.30	5.30	6	5, 6, or 7	(?)	5.30	6	7.30	6	4.30	6	(?)	5.30
Evening School	..	6.45 to 8.30	7 to 8	7 to 8	..	7.20 to 8.20	7 to 8.15	..	7 to 8.15	7 to 8.30	..	..	7 to 8	7 to 9	..	6.30 to 8	..	..	6 to 7.30
Supper	8.15	9	(?)	8.30	8	8.30	9	8.30	8	8.30	(?)	..	8.30	..	..	8	..	(?)	8
Bedtime	9	9	8	9	9	8.30	9	9	9 & 10[2]	9	8 and 9.15[2]	8 & 9[2]	8.30	9, 10, or 11[2]	8.30	8.15	9	8.30	8
Hours devoted to School ..	6½, & 2 days 4½	7	7½	7	6½	6	7½	7	6½	8½	6	36 weekly 31 wkly.	7	8	7	8 or 8½	7½, on 2 days 4½	7½	6½
,, Recreation[3]	2½	3½	2½	4	4	4	4½	3½ or 4	About 4	5	4½	4	5	4	4	4	4½	..	3½
,, Sleep[4] ..	10	9	10	9½	9½	10½	9	10	10 & 9	10	10 & 11	9½	9½ or 10	9½	9½	9½ to 9¾	9	..	11

[1] An interval of ten minutes at 11.

[2] For seniors.

[3] Except on half-holidays, which in the majority occur twice in the week, and on these days there is an addition of two hours and a half to the recreation period, and a corresponding reduction in the time given to school work.

[4] Approximate only.

(in three in winter only); so that considerable variations occur on this point (see Table D). It will be seen also that in ten the time given to school is two hours, in eight between two and three hours, and in four less than two. (d) *Evening school.*—In rule one hour is given to this (see Table B). The total number of hours devoted to work varies, then, from five and a half to eight and a half, the average of these twenty-two schools being seven hours and a half, or precisely that which we found to be the case in our typical instance. In some of the schools the senior boys have from nine to nine and a half hours' work. It is not, however, the sum total of the working hours that is to be laid stress upon, but

TABLE D.—SHOWING TIME DEVOTED TO WORK AND RECREATION BETWEEN DINNER AND TEA.

No.	Total Period.	Recreation before School.	School.	Recreation after School.
	Hours.	Hours.	Hours.	Hours.
1	4½	2½	2	None
2	5½	2	2	1½
4	4½	2	1	1½
5	4½	½ *a* 2 *b*	2 *a* 2 *b*	2 *a* ½ *b*
6	4½	¾ *a* 1¾ *b*	2 *a* 2 *b*	1½ *a* ½ *b*
7	4	1½	2½ *c*	None
9	3½	1½	2	None
10	4¾	¼ *a* 2½ *b*	2 *a* 2½ *b*	2½ *a* None *b*
11	4½	1¼	2½	½
13	5½	2½	3 *c*	None
16	4½	½ *a* 2 *b*	1½ *a* 1½ *b*	2½ *a* ¾ *b*
18	4½	½	2	2
19	4	½	2	1½
22	4½	½	2½	1¾
24	3½	½	2½	½
26	4	2	2	None
27	3 or 3½	1½	1¾	½
29	4½	1	2	1½
30	3½ to 5½	½	2½	½ or 2½
33	4	½	2½	1
36	3	None	2¾	¼
39	4	½	1	2½

a In summer. *b* In winter. *c* With break of ten minutes.

the manner in which these are distributed throughout the day, and the tables appended bring out this distribution in a concise form. It must, of course, be remembered that hardly without exception every school has two days in the week in which no afternoon work is done, and in one school we find three half holidays in the week. This must be taken into account in drawing complete deductions.

5. *Recreation.*—From what has been said concerning the school hours, the time given to recreation may be inferred. The only point to which attention may be specially directed is that of the longest period devoted to play—viz., in the afternoon. It is noteworthy that in more than one-half of the twenty-two schools this recreation period is taken *after*, and not before, the school work; it varies in duration from one to two hours. Exceptions to this occur in Numbers 1, 2, 5 (winter), 6 (winter), 7, 9, 10 (winter), 11, 13, 16 (winter), 20, and 27; in each of these about two hours intervene between dinner and school time (see Table D). The diversity existing with regard to the hour of morning recreation has already been noticed, and we may simply add that the *total* time given to recreation, even on the most liberal estimate, is between three hours and a half and four hours. One school returns only two hours and three-quarters, and one gives five hours, as the daily time so bestowed.

6. *Sleep.*—The average time given to sleep in these schools is from nine hours and a quarter to nine hours and a half.

Before leaving these matters the following may be quoted from one of our correspondents (although we do not thereby endorse all his recommendations), as it enters into full details and gives more particulars about games, &c., than do most of the others. The same correspondent enters also fully into the question of supervision of the boys in the dormitories, and especially the precautions taken to suppress vicious practices; but as the matter is not dealt with by others, and as these are subjects upon which every schoolmaster is well informed, we do not deem it necessary to refer to them here.

"*Schoolwork, including preparation.*—About three hours and a quarter between breakfast and dinner; two hours and three-quarters between tea and prayers. Three days per week, one hour for drawing, or three-quarters of an hour for substitute for drawing, in the afternoon. Saturday, about three hours in the morning; singing, or substitute for singing, one hour in the evening. Sunday, one hour for religious instruction; one hour for singing, or substitute for singing. All juniors have half an hour of their school time occupied with singing every day. There is, also, half an hour daily for compulsory gymnastics: fencing, drill, or sparring. Gymnasium always open.

"*Hours devoted wholly to play.*—Every boy must be out at least forty minutes before dinner engaged in some out-door exercise. Every boy may be out rather more than one hour before dinner. Different forms are out at different times, but all have two intervals, one about ten minutes, and the other nearly an hour. Gymnastics, &c., taken at other times. Golf is greatly played, but boys are almost made to play hand fives occasionally, as being one of the few exercises which develops the left side of the body. At three P.M. every boy is obliged to dress in flannel, which, except in summer, must be changed before tea. He must be out of doors from 3.15 to 4.30 at least. During the latter part of this time there is some compulsory game—hockey, Rugby football, Association football, and athletics in their season. The daily time of football is forty minutes. In the cricket season boys must join in the sides, except they have leave off, which is easily got for bird-nesting (if they are really collecting). In winter, if they can be spared by the heads of sides, boys can get occasional leave off football, &c., provided they take some really warming exercise, as a run, before changing for tea. Work is at 5.30, and the time between tea and work is free for play, reading, &c. Every boy has about half an hour free interval in all between tea and prayers, at 8.45; and between prayers and a bell, at 9.30, free play and romping about the house, or in summer about the grounds, is allowed. This noisy play before bed-time is a great factor in preventing certain mischiefs, which are more engendered by enforced quiet than by almost anything else. On Monday and Thursday (if fine) the interval between dinner and 3.15 is quite free. But no hard play or hard brain work should go on during the early hours of digestion. On Saturdays there are either matches or excursions, &c., and boys, if not in matches, are encouraged to run great distances. The restraint on mischief is not supervision, but a feeling of honour, and also very free communication between prefects and head-master. On very wet days the only outdoor exercise is a compulsory run of about three miles and a half. All play must be taken loosely clad, without waistcoats (which are seldom worn at all, except in cold weather), and with shirt open at neck; without coats when warm enough. Deductions from play are piano lessons, and a small amount of fagging, not oftener than once per week, except boys are lazy. Fagging consists in cleaning fives court, bringing in footballs, fielding at cricket, &c. No detention is allowed during the afternoon interval, or to prevent a boy having half an hour in open air before dinner; impositions being thus prevented on the ground of health. Almost the only punishment is corporal. The question of punishment seems to me to be closely connected with that of play. No boy should be deprived of his exercise any more than of his food or sleep.

"*Going to bed.*—The rules are not hard and fast. Each prefect manages his own domain, and consults me when doubtful. Generally, younger boys are in bed by 10 P.M. Prefects at 11.15 P.M. I find that boys usually wish to go to bed if left alone. Some boys may go before prayers if they like. Morning call is at 7.30, prayers at 8.15, and everyone goes out for five minutes between prayer and breakfast. I don't believe in work before breakfast. In winter the early hours are damp and unwholesome. In summer, going to bed when bedrooms are hot is injurious. In really hot weather boys may be out after prayers till nearly 10 P.M. The balance seems to me in favour of late going to bed and late rising. But this is one of the many subjects on which I wish that more people made systematic inquiry, and did not go by unreasoning tradition. I am sure that the early lock-up in summer are injurious."

Lastly, as to the points raised in the fifth query—viz.,

that referring to the quality and quantity of food and the distribution of meals. In Table B the hours at which the meals are held in all the schools will be found, and need not be reproduced. Many of our correspondents enter very fully into the nature of the food supplied; and it is plain that the returns are satisfactory upon this point. The chief meal of the day is in most provided on a very liberal scale, and in none can it be said that it is at all insufficient. Especial stress is laid by many on the fact that there is always a joint on the table, sometimes preceded by fish or soup, or followed by pastry; and after carefully perusing all the replies it does not appear to us necessary to submit them to analysis. It may be mentioned that in some schools beer is allowed; in others it is forbidden. With regard to breakfast, we find that meat or eggs are given in twenty-three out of thirty-seven schools (in six of them as an "extra," or reserved for delicate or senior lads), and nine make mention of oatmeal porridge. In other respects this meal resembles the "tea," except that more frequently coffee, cocoa, or milk is given at the former meal, tea at the latter. Then, in two or three schools coffee or milk is given after rising in the morning before early school; in very many there is a slight repast of bread-and-butter at mid-day, and again at the close of the day.

Having thus attempted very briefly in this preliminary report to survey the chief facts elicited by the circular, we are left free to proceed in a methodical manner to offer suggestions upon each and all of the points raised in the inquiry, in the hope that such suggestions may be of service to all who are specially interested in the health of our schools.

THE HUNTERIAN MUSEUM.

AN interesting circumstance connected with the election of Fellows into the Council of the Royal College of Surgeons is the annual exhibition of additions to the Museum. This year the collection shown on the 7th inst. maintained its interest. The additions to the pathological series, perhaps one of the most important to the profession, have been unusually large. A series of preparations have been presented by Mr. S. G. Shattock, showing the repair of wounds, cicatrisation after the fall of the petiole, the union of grafts, and other processes observed in vegetables. M. Parrot, Drs. Barlow, George Bennett, and Herman, and Mr. R. W. Parker, have sent a number of specimens illustrating the pathology of rickets, infantile syphilis, and combined or allied forms of these diseases in fœtal life and in childhood, which have been the subjects of papers published in the Proceedings of various Societies, and in the medical journals. Sir Joseph Fayrer has contributed several valuable specimens of dysenteric intestines and abscess of the liver. The staff of the Samaritan Hospital, and other gentlemen, have presented some interesting examples of diseases of the female organs, including a series demonstrating the twisting of ovarian pedicles, and the pathological effects of that lesion. Amongst the contributors to this department we notice Drs. Goodhart, Bantock, Renaud, Manson, &c. It is stated that the new catalogue by Sir James Paget, Dr. Goodhart, and Mr. Doran will be ready for the press before the close of the year. The appointment of a pathological curator will lead to a further development of the Pathological Department.

The osteological collection has been enriched through the liberality of Mr. W. R. Kinsey, Principal Civil Medical Officer and Inspector-General of Hospitals in Ceylon, who has contributed a valuable collection of skulls and skeletons of the Veddahs or aboriginal inhabitants of that island, with promise of shortly sending corresponding specimens of the Cingalese. Dr. T. Shortt, Deputy-Surgeon-General, continues his valuable donations of crania of the inhabitants of Central and Southern India. Surgeon-Major J. C. Mackenzie has sent two complete skeletons, and four others are on their way from the same source. A large collection of Egyptian skulls, about 100 in number, has just been received from Capt. Burton, H.M. Consul at Trieste. A very fine specimen of a sea lion (Otaria jubata), obtained for the museum by Mr. F. Coleman, secretary of the Falkland Islands Company, has been added to the collection. Mr. H. Mansell has given a skull of the great elephant seal (Macrorhinus leoninus), considerably larger than any existing in the other museums in Europe, and was the subject of a memoir read at the Zoological Society in January last by Professor Flower, and subsequently published in the Proceedings.

The "Barnard Davis" collection alluded to last year, and which was found in a dirty condition and mostly covered with varnish, has been entirely cleaned and rearranged, and the skeletons partially rearticulated and placed upon stands; the casts, too, have been repainted. This collection is now permanently placed in thorough working order, and its value is thus altogether of a different character from that which it possessed when it came into the possession of the College.

In the Normal Anatomy and Physiology series numerous specimens have been added, many of great interest, as a preparation showing the muscles of the abdominal wall, which required great skill and care in dissection, and one of the vessels of the female pelvis. In Comparative Anatomy there are many preparations, including almost every part of the structure of a Manatee which had lived for seventeen months in the Brighton Aquarium.

Professor Flower notices the interesting fact that art students of both sexes avail themselves of the Museum in constantly increasing numbers, as in the numerous articulated skeletons and dissected preparations of muscles, they find in the College Museum facilities for their studies which they can obtain nowhere else in London. Professor Flower is to be congratulated on the admirable manner in which his assistants carry out his suggestions and ideas. We would specially call attention to the beautiful dissections of Mr. William Pearson, the third generation of that family, who have so long been in the service of the College, and in the articulations made by Mr. John Marle on the sea-lion, &c.

Amongst the many contributors are, as usual, many past and present members of the Council, as Sir J. Paget, and Messrs. Curling, Gay, Spencer Wells, Le Gros Clark, Holden, Hutchinson; Professors Marsh, of Yale College, Turner, Parker; Drs. Goodhart, Bantock, Barlow, Renaud, Creighton, Manson, Day, Rugg, Allchin, Clouston, Earl Ducie, Sir J. Fayrer, Lieut. Channer, the late E. W. Cook, R.A., and Messrs. Doran, Shattock, M. Beck, E. Bellamy, Wrench, C. Stewart, W. Adams, S. Salter, C. Heath, R. Harrison, Ransford, Thornton, Lawson, H. Morris, Hall, S. Boyd, Hedges, Willett, Waghorn, &c. The exhibition was on view in the Council room of the College instead of the theatre as heretofore.

"THE ETIOLOGY AND CLINICAL BEARINGS OF THE GERM THEORY OF DISEASE."

(Reformed Speling! No duplicated consonants except in personal names.)

To the Editor of THE LANCET.

SIR,—Permit me to thank your two last week's corespondents who comented on some of my observations on germs.

If Mr. Curran wil kindly again read what I said about Spallanzani, he wil perceive that I did not atribute to him the origin of the theory of spontaneous generation; but only cited him as one who had studied the subject experimentaly, and since whose days the same theory had been resuscitated on an average, in round numbers, once in every quarter of a century. The fact which Mr. Curran cals atention to—namely, that the spontaneous generation theory has, at diferent times, ocupied the atention of philosophers ever since the days of Democritus—is exceedingly interesting, and wel worthy of being made more generaly known.

To Mr. Flowright I am indebted for caling my atention to the fact that I may be in eror in suposing that the parasites which produce the disease in the silkworm and salmon, the potato and the vine, are merely gradational forms of development in the transitional life's career of the oïdium, and are, as he says, perfectly distinct species. Although I don't agree with him, his remark is so important that in future I shal bear it in mind while studying the clinical bearings of germs in the production of human diseases. I am, Sir, yours faithfuly,

Harley-street, W., 11th July, 1881. GEORGE HARLEY.

INDEX TO MAP.—(No. I.)

LIST OF PARISHES IN WHICH METROPOLITAN HOSPITALS, &c., ARE SITUATE.

Number of Parish.	Name of Parish.	Name and Address of Hospital.
I.	Hammersmith	West London Hospital, Hammersmith-road.
II.	Kensington	1. Hospital for Consumption, Fulham-road. 2. Kensington Infirmary, Marloes-road, Kensington. 3. Marylebone Infirmary, Rackham-road, Kensington.
III.	Fulham	Epidemic Hospital (Small-pox).
IV.	Paddington	1. Hosp. for Child., Maida-vale. 2. Lock Hospital for Females, Westbourne-grn., Paddingt. 3. St. Mary's Hospital, Cambridge-place, Paddington.
V.	Chelsea	1. Cancer Hospital, Brompton. 2. Cheyne Hospital for Children, Cheyne-walk, S.W. 3. St. Raphael's Hosp. for Men, Sydney-st., Fulham-rd, S.W. 4. Victoria Hospital for Children, Queen's-road, S.W. 5. Hosp. for Women, King's-rd. 6. Chelsea Infirmary, Cale-street, Chelsea. 7. St. George's Infir., Fulham-rd
VI.	St. George, Hanover-sq.	1. Belgrave Hospital for Children, Pimlico, S.W. 2. Royal Orthopædic Hospital, Oxford-street. 3. St. George's Hospital, Hyde-park-corner.
VII.	St. James, Westminster	Throat Hospital, Golden-sq.
VIII.	St. John, Westminster	Hosp. for Women and Children.
IX.	St. Margaret, Westm.	Westminster Hospital.
X.	St. Marylebone	1. Hospital for Epilepsy, Portland-terrace, N.W. 2. Middlesex Hospital, Berners-street, Oxford-street. 3. National Orthopædic Hospital, Great Portland-st. 4. New Hospital for Women, Marylebone-road. 5. Queen Charlotte's Lying-in Hospital, Marylebone-road. 6. St. Peter's Hosp. for Stone, Berners-street. 7. Samaritan Hospital, Lower Seymour-street, W. 8. Western Eye Hospital, 218, Marylebone-road. 9. Western Ophthalmic Hospital, 153, Marylebone-rd.
XI.	Hampstead	1. North Lond. Consump. Hosp., Mount Vernon, Hampstead. 2. Small-pox Hospital, Fleet-road, Hampstead.
XII.	St. Pancras	1. Central London Throat Hospital, Gray's-inn-road. 2. London Temperance Hospital, Hampstead-road. 3. Royal Free Hospital, Gray's-inn-road. 4. Univ. Coll. Hosp., Gower-st. 5. Sick Asylum, Highgate. 6. St. Saviour's Cancer Hospital, Osnaburgh-st., N.W. 7. Sick Asylum, Cleveland-st.
XIII.	Islington	1. Gt. North. Hosp., Caledon.-rd. 2. Lond. Fev. Hosp., Liverp.-rd. 3. St. Saviour's Lying-in Hospital, Upper Holloway. 4. Small-pox and Vaccination Hospital, Upper Holloway. 5. Holborn Infirmary, Archway-road, Upper Holloway. 6. Islington Infirm., St. John's-road, Upper Holloway.
XIV.	Hackney	1. German Hospital, Dalston. 2. Fever Hospital. 3. Small-pox Hospital. 4. Hackney Infirmary, High-street, Homerton.
XV.	Stoke Newington	Invalid Asylum, Stoke Newingt.
XVI.	St. Giles-in-the-Fields	British Lying-in Hosp., Endell-street, Long-acre.
XVII.	St. Clements Danes	King's College Hospital, Portugal-street, Lincoln's-inn.
XVIII.	St. Martin-in-the-Fields	1. Charing-cross Hospital. 2. Ophthal. Hosp., Charing-cr.
XIX.	St. Anne, Soho	1. French Hospital, Leicester-place, Leicester-square. 2. Hosp. for Women, Soho-sq. 3. Lock Hospital for Males, Dean-street, Soho. 4. National Hospital for Heart Disease, Soho-square. 5. St. John's Hospital for Skin Diseases, Leicester-square.
XX.	St. Andrew, Holborn	1. Hospital for Children with Hip Disease, Queen-square. 2. Home for Incurable Women, New Ormond-street. 3. Hospital for Sick Children, 49, Great Ormond-street. 4. London Homœopathic Hospital, Great Ormond-street. 5. National Hospital for the Paralysed and Epileptic, Queen-sq., W.C. 6. St. John's and St. Elizabeth's Hospital, Great Ormond-st.
XXI.	Saffron-hill	City Orthopædic Hospital.
XXII.	St. Luke	1. City of London Lying-in Hospital, City-road. 2. Hospital for Chest Diseases. 3. St. Mark's Hospital for Fistula &c., City-road. 4. St. Luke's Hospital for Lunatics, Old-street.
XXIII. & XXIV.	CITY OF LONDON: St. Stephen	1. Ophthalmic Hosp., Bloomfield-street, Moorfields.
	St. Bartholom.-the-Less	2. St. Bartholomew's Hospital, West Smithfield.
XXV.	Spitalfields	Metropolitan Free Hospital, Commercial-street.
XXVI.	Shoreditch	1. North-Eastern Hospital for Children, Hackney-road. 2. Hoxton House for Lunatics, Hoxton. 3. Shoreditch Infirmary, Kingsland-road.
XXVII.	Bethnal-green	1. City of London Hospital for Diseases of the Chest, Victoria-park, E. 2. Bethnal House (for Lunatics), Bethnal-green.
XXVIII.	Whitechapel	1. London Hospital, Mile-end. 2. Whitechapel Infirm., Bakers-row, Whitechapel.
XXVIII. A	St. George-in-the-East	St. George-in-the-East Infirm., Old Gravel-lane, E.
XXIX.	Shadwell	East London Hospital, Shadwell.
XXX.	St. Leonard, Bromley	1. Poplar Hosp. for Accidents. 2. Poplar and Stepney Sick Asylum. 3. City of London Infirmary, Bow-road.
XXX.	Bow	Grove Hall for Lunatics, Bow.
XXXI.	St. Olave	Guy's Hospital (part of), St. Thomas's-street, Borough.
XXXII.	St. Saviour, Surrey	Guy's Hospital (part of).
XXXIII.	St. Saviour, Christchurch	Hosp. for Diseases of the Skin, Stamford-st., Blackfriars.
XXXIV.	St. George-the-Martyr	1. Evelina Hospital for Children, Southwark-bridge-rd. 2. Royal South London Ophthalmic Hosp., St. George's-circus, Southwark. 3. Bethlem Hosp. for Lunatics, Lambeth-road, S.E.
XXXV.	Lambeth	1. Royal Infirmary for Women and Children. 2. St. Thomas's Hospital, Albert Embankment. 3. Stockwell Fever Hospital. 4. Stockwell Small-pox Hosp. 5. Lambeth Infirm., Pleasant-pl., Brook-st., Kennington.
XXXVI.	Clapham	British Home for Incurables, Clapham-rise.
XXXVI. A	Battersea	Wandsworth and Clapham Infirmary, St. John's-hill, Wandsworth.
XXXVII.	Wandsworth	1. Royal Hosp. for Incurables, West-hill, Putney-heath. 2. Wandsworth Asylum for Lunatics, Wandsworth.
XXXVIII.	Kingston	Metropolitan Convalescent Institution, Kingston-hill.
XXXIX.	Lewisham	Hosp. for Women and Children, Sydenham-park.
XL.	Deptford	Small-pox Hosp., Old Kent-rd.
XLI.	Camberwell	1. Camberwell House for Lunatics, Camberwell. 2. Peckham House for Lunatics, Peckham. 3. Camberwell Infirm., Havil-street, Camberwell.
XLII.	Newington	St. Saviour's Infirmary, Westmoreland-road, Walworth.
XLIII.	Rotherhithe	St. Olave's Infirmary, Lower-road, Rotherhithe.
XLIV.	Greenwich	Greenwich Infirmary, Trafalgar-road, Greenwich.
XLV.	Plumstead	Woolwich Infirm., Plumstead.

INDEX TO MAP.—(No. II.)

ALPHABETICAL LIST OF METROPOLITAN HOSPITALS.

Hospital.	Parish.	No. of Parish on Map.	No. of Hosp. on Map.
Accidents, Poplar Hospital for	St. Leonard, Bromley	XXX.	1
Asylum, Sick, Central London	St. Pancras	XII.	5
" " "	"	XII.	7
" Poplar and Stepney	St. Leonard, Bromley	XXX.	2
Belgrave Hospital for Children	St. George, Hanover-square	VI.	1
British Home for Incurables	Clapham	XXXVI.	—
Bethlem Hospital	St. George, Southwark	XXXIV.	3
Bethnal House	Bethnal-green	XXVII.	2
Cancer Hospital	Chelsea	V.	1
" " St. Saviour's	St. Pancras	XII.	6
Central London Throat Hospital	"	XII.	1
Charing-cross Hospital	St. Martin-in-the-Fields	XVIII.	1
Chest Disease, Hospital for	St. Luke	XXII.	2
Cheyne Hospital for Children	Chelsea	V.	2
Children, Belgrave Hospital for	St. George, Hanover-square	VI.	1
" Cheyne " "	Chelsea	V.	2
" Evelina " "	St. George, Southwark	XXXIV.	1
" with Hip Dis. " "	Holborn	XX.	1
" Hospital for "	Paddington	IV.	3
" for Sick	Holborn	XX.	3
" N.E. Hospital for	Shoreditch	XXVI.	1
" Victoria Hospital for	Chelsea	V.	4
City Orthopædic Hospital	Saffron-hill	XXI.	—
City of Lond. Hosp. for Chest Dis.	Bethnal-green	XXVII.	1
" Lying-in Hospital	St. Luke	XXII.	1
Consumption Hospital	Kensington	II.	1
" North London	Hampstead	XI.	1
Convalescent Instit., Metrop.	Kingston	XXXVIII.	—
Camberwell House	Camberwell	XLI.	2
Camberwell Infirmary	"	XLI.	3
Chelsea "	Chelsea	II.	7
East London Hospital	Shadwell	XXIX.	—
Epilepsy, Hospital for	St. Marylebone	X.	1
Evelina Hospital for Children	St. George, Southwark	XXXIV.	1
Eye Hospital, The Western	St. Marylebone	X.	3
Epidemic Hospital, Hampstead	Hampstead	XI.	2
" " Deptford	Deptford	XL.	—
" " Fulham	Fulham	III.	—
Females, Lock Hospital for	Paddington	IV.	2
Fever Hospital, The London	Islington	XIII.	2
Fistula, St. Mark's Hospital for	St. Luke	XXII.	3
French Hospital	St. Anne, Soho	XIX.	1
Fever Hospital, Homerton	Hackney	XIV.	2
" " Stockwell	Lambeth	XXXV.	4
German Hospital	Hackney	XIV.	1
Great Northern Hospital	Islington	XIII.	1
Greenwich Infirmary	Greenwich	XLIV.	—
Grove Hall	Bow	XXX.	—
Guy's Hospital	St. Olave and St. Saviour	XXXI. & II.	—
Heart Dis., National Hosp. for	St. Anne, Soho	XIX.	4
Hip Dis., Hosp. for Children with	St. Andrew, Holborn	XX.	1
Home for Incurable Women	" "	XX.	2
Homœopathic Hosp., The Lond.	" "	XX.	4
Hospital for Women	Chelsea	V.	5
Hanwell Asylum	—	—	—
Hoxton House	Hoxton	XXVI.	2
Hackney Infirmary	Hackney	XIV.	4
Holborn Infirmary	Islington	XIII.	5
Highgate Infirmary	St. Pancras	XII.	5 & 7
Incurables, British Home for	Clapham	XXXVI.	—
" Royal Hospital for	Wandsworth	XXXVII.	—
Incurable Women, Home for	Holborn, St. Andr.	XX.	2
Infirm. for Women and Children, Royal Hospital for	Lambeth	XXXV.	1
Invalid Asylum	Stoke Newington	XV.	—
Islington Infirmary	Islington	XIII.	6
King's College Hospital	St. Clement Danes	XVII.	—
Kensington Infirmary	Kensington	II.	2
Lock Hospital for Females	Paddington	IV.	2
" " for Males	St. Anne, Soho	XIX.	3
London Fever Hospital	Islington	XIII.	2
" Homœopathic Hosp.	St. Andrew, Holborn	XX.	4
" Hospital, The	Whitechapel	XXVIII.	1
" Temperance Hospital	St. Pancras	XII.	2
Lying-in Hosp., City of London	St. Luke	XXII.	1
" " Qn. Charlotte's	St. Marylebone	X.	5
" " St. Saviour's	Islington	XIII.	3
Lambeth Infirmary	Lambeth	XXXV.	5
London City Infirmary	Bromley-by-Bow	XXX.	3
Males, Lock Hospital for	St. Anne, Soho	XIX.	3
Men, St. Raphael's Hospital for	Chelsea	V.	5
Metrop. Convalescnt. Institution	Kingston	XXXVIII.	—
" Free Hospital	Spitalfields	XXV.	—
Middlesex Hospital, The	St. Marylebone	X.	2
Nat. Hosp. for Heart Disease	St. Anne, Soho	XIX.	4
" " the Paralysed and Epileptic	St. Andrew, Holborn	XX.	5
National Orthopædic Hosp.	St. Marylebone	X.	3
New Hospital for Women	"	X.	4
Nth.-Eastrn. Hosp. for Children	Shoreditch	XXVI.	1
Nrth. Lond. Consumption Hosp.	Hampstead	XI.	1
Ophthal. Hosp., The	St. Martin-in-the-fields	XVIII.	2
" " "	St. Stephen, City	XXIII. & XXIV.	1
" " The Western	St. Marylebone	X.	9
" " The Royal S. I.	St. George, Southwark	XXXIV.	2
Orthop. Hosp., The City	Saffron-hill	XXI.	—
" " The National	St. Marylebone	X.	3
" " The Royal	St. George, Hanover-square	VI.	2
Paralysed and Epileptic, Nat. Hospital for	St. Andrew, Holborn	XX.	5
Poplar Hospital for Accidents	St. Leonard, Bromley	XXX.	1
Peckham House	Peckham	XLI.	1
Qn. Charlotte's Lying-in Hosp.	St. Marylebone	X.	5
Royal Free Hospital	St. Pancras	XII.	3
" Hospital for Incurables	Wandsworth	XXXVII.	—
" Infirmary for Women and Children	Lambeth	XXXV.	1
" Orthopædic Hospital	St. George, Hanover-square	VI.	2
" S. London Ophthal. Hosp.	St. George, Southwark	XXXIV.	2
St. Bartholomew's Hospital	St. Bart.-the-Less	XXIII & XXIV.	2
St. George's Hospital	St. George, Hanover-square	VI.	3
St. John's and Elizabeth's Hosp.	St. Andrew, Holborn	XX.	6
St. Mark's Hosp. for Fistula, &c.	St. Luke	XXII.	3
St. Mary's Hospital	Paddington	IV.	3
St. Raphael's Hospital for Men	Chelsea	V.	3
St. Saviour's Cancer Hospital	St. Pancras	XII.	6
St. Saviour's Lying-in Hospital	Islington	XIII.	3
St. George, Hanover-sq., Infirm.	Chelsea	V.	7
St. George-in-the-East Infirmary	St. George-in-the-East	XXVIII.A	—
St. Marylebone Infirmary	Kensington	II.	3
St. Olave's Infirmary	Rotherhithe	XLIII.	—
St. Saviour's Infirmary	Newington	XLII.	—
Samaritan Hospital	St. Marylebone	X.	7
Shoreditch Infirmary	Shoreditch	XXVI.	3
Sick Children, Hospital for	St. Andrew, Holborn	XX.	3
Skin Dis., St. John's Hosp. for	St. Anne, Soho	XIX.	5
" " Hospital for	St. Saviour, Christchurch	XXXIII.	—
Small-pox and Vaccintn. Hosp.	Islington	XIII.	4
Stone, St. Peter's Hospital for	St. Marylebone	X.	6
St. Luke's Hospital (Lunatics)	St. Luke	XXII.	4
Small-pox Hosp., Homerton	Hackney	XIV.	5
" " Stockwell	Lambeth	XXXV.	5
" " Fulham	Fulham	III.	—
" " Hampstead	St. Pancras	XI.	2
Temperance Hosp., The London	St. Pancras	XII.	2
Throat Hosp., The Cntrl. Lond.	"	XII.	1
" " "	St. James, Westmr.	VII.	—
University College Hospital	St. Pancras	XII.	4
Vaccintn. Hosp., Small-pox and	Islington	XIII.	4
Victoria Hospital for Children	Chelsea	V.	4
Western Eye Hospital	St. Marylebone	X.	2
" Ophthalmic Hospital	"	X.	9
West London Hospital	Hammersmith	I.	—
Women and Children, Hosp. for	St. John, Westmr.	VIII.	—
" " " Royal Infirmary for	Lewisham	XXXIX.	—
Women, Home for Incurable	Lambeth	XXXV.	1
" Hospital for	St. Andrew, Holborn	XX.	2
" " "	Chelsea	V.	5
" New Hospital for	St. Anne's, Soho	XIX.	3
Westminster Hospital, The	St. Marylebone	X.	4
Wandsworth Asylum	St. Margt., Westr.	IX.	—
Wndswrth and Clapham Infirm.	Wandsworth	XXXVII.	—
Whitechapel Infirmary	Battersea	XXXVI.A	—
Woolwich Infirmary	Whitechapel	XXVIII.	2
	Plumstead	XLV.	—

THE LANCET.

LONDON: SATURDAY, JULY 16, 1881.

THE result of the election held at the Royal College of Surgeons on Thursday, the 7th instant, is a happy one, whether we regard it as an indication of the personal interest taken by the Fellows in the business of the Council or as an earnest of the future of the College. The choice of the Fellows was well considered, and apparently made in accordance with intelligible principles. Sir JAMES PAGET was re-elected at the head of the poll by an unusually large proportion of votes; and the number of votes accorded to Mr. HULKE and Mr. HEATH expressed clearly enough the wishes and intentions of the Fellows. The election of the two gentlemen last named is a distinct addition to the strength of the Council. Both Mr. HULKE and Mr. HEATH have, as examiners, already had long and intimate relations with the Council, and they are both connected with large and prosperous schools. They possess, therefore, the double qualification for a seat in the Council, namely, high professional position, and practical acquaintance with the various matters relating to medical education and examination. In other respects the election was instructive in its prognostications and in its lessons. Mr. CROFT took such a good fourth place that his election next year is almost certain, should he then be a candidate. Mr. REGINALD HARRISON stood fifth, but so far behind that we would fain hope that the practice of bringing forward provincial candidates, as such, will be checked. Mr. HARRISON'S candidature was, moreover, premature, though he has shown unmistakable signs of energy and zeal. Mr. HAYNES WALTON, who sought re-election, stood at the bottom of the poll, with less than one-third of the number of votes given to Sir JAMES PAGET, and with a little more than half the number given to either Mr. HULKE or Mr. HEATH.

An examination of the statistical result is, in other respects, instructive, and exposes the feebleness and folly of "plumping" at the College elections. Speaking generally, it may be said, strong and worthy candidates do not need "plumpers." Plumping is, usually, a device of the supporters of the weak, and is as objectionable as canvassing by candidates. Plumping may, conceivably, be allowable in some instances to counteract the machinations of a cabal, but, as a rule, it may be taken as indicative of doubt and distrust. Sir JAMES PAGET, for example, polled 228 votes with only one "plumper," or 0·438 per cent.; Mr. HULKE 137 votes, with 8 "plumpers," or 5·84 per cent.; and Mr. HEATH 133 votes with 5 "plumpers," or 3·75 per cent. Mr. CROFT, on the other hand, received 113 votes with 18 "plumpers," or 15·92 per cent.; Mr. HARRISON 87 votes with 12 "plumpers," or 13·78 per cent.; and Mr. WALTON 72 votes with 5 "plumpers," or 6·94 per cent. In other terms, the three unsuccessful candidates received 35 plumpers, while the three successful candidates received only 14 plumpers; or, comparing the proportion of plumpers with the number of votes, the three successful candidates received only 2·81 per cent.; while the three unsuccessful candidates received 12·86 per cent. On these facts comment is unnecessary.

THE great festival which will make the current year famous in the annals of British medicine may be said to commence to-day with the opening of the International Medical and Sanitary Exhibition by the Lord President of the Council, assisted by Earl GRANVILLE and the President of the Local Government Board. Modern medicine has made its greatest advances in the direction of prevention, and there seems to us to be a peculiar fitness in this joint Exhibition, organised as it has been by physicians and surgeons on the one hand, and by architects, engineers, and surveyors on the other. The medical profession has pointed out in many cases how disease in its epidemic form lays siege to, and how in its endemic form it takes permanent possession of, society, and it has indicated in numerous instances the kind of precautions which are necessary in order to keep the enemy at bay. These precautions have to be carried into effect by the engineers who control our water-supply and construct our sewers, by the architects who build our public meeting halls and domestic residences, and by the caterers who furnish us with meat and drink of various kinds. The visitor to the Exhibition, be he a medical man or not, may enter at Queen's Gate and see what are the latest improvements in instruments used in the investigation of disease; he may wander through the Quadrant galleries and see how prolific this country is in the invention of new methods of treatment; he may go into the rooms near the Albert Hall and contrast the styles of treating ordinary injuries in vogue at the different London hospitals, and thence, if he make his way into the Eastern galleries and arcades, he will find how practical men are endeavouring to put into practice the teachings of exact science.

The Exhibition is, we believe, unique, and exceeds in extent any similar exhibition which has ever been held. The display in every section is a good one, and, in many instances, it is exceptionally so. Surgical instruments have been sent for exhibition by all the leading firms of London, almost without exception, and by many others from the principal provincial towns, from America, and from the Continent. In no section will there be a better display than in that devoted to drugs, disinfectants, and medical dietetic articles, and the judges will have a heavy task before them in deciding as to the relative merits of the almost innumerable specimens which will be submitted to their criticism. Microscopes will be there in great numbers, and there will also be a large display of the numerous accessories which have become of late indispensable to the microscopic pathologists. Nothing is likely to interest our provincial and foreign visitors to the Congress more than the show of articles for putting into practice the teachings of Professor LISTER. Sprays, antiseptics, antiseptic gauzes and dressings will be seen in plenty, and it will be observed that many of these articles are sent to the Exhibition from abroad. Seeing how huge a place London is, and how impossible it is to visit even its chief hospitals within the short period of a week, our guests will feel particularly thankful for that part of the Exhibition which has been so ably organised by Dr. STEELE, of Guy's Hospital, and in which will be displayed specimens

of the beds and ward-gear of all the principal London hospitals, along with the appliances for treating ordinary fractures. In this same department will be found also the plans of many of the hospitals which have been erected under the auspices of the Local Government Board, so that a tolerably comprehensive idea may be easily obtained of "Medical London" by a stroll through the two or three rooms devoted to this very interesting display.

The sanitary sections of the Exhibition are equally as well filled as the medical sections, and it is almost impossible for anyone to visit the collection without finding many objects of surpassing interest. The medical profession, in all its branches, will necessarily be those who will take interest in the greatest number of the sections. Then, probably, will come architects and persons connected with building and engineering. Pharmacists will assuredly visit the Exhibition in great numbers, and so will working cutlers and others connected with the manufacture of surgical instruments and apparatus and instruments of precision. Finally, those who have adopted the profession of nursing and those who have been dabbling in medical matters by attending the ambulance classes held under the auspices of the Society of St. John of Jerusalem may be expected to increase their practical knowledge of the care of the sick by inspecting the appliances and apparatus designed for the cure, alleviation, and prevention of disease. The Exhibition must be regarded as a great triumph, and we only hope that it may prove financially successful, since any profit which may result from it is to be handed over to the trustees of that useful institution, the Parkes Museum of Hygiene.

IT is well that at length public attention has been seriously directed to the expediency of removing those restrictions on the supply of fish which, alone, prevent the multitude from regarding fish as common food. By those classes who can procure it fresh and in season, it is looked upon as a luxury, or at most an accessory dish; while by the poorer orders of the people, who can seldom have it except in a stale and deteriorated condition—unless there happen to be a glut in the market, which occurs only through some error of judgment, or an accidental breakdown in the management, of those who have control of the trade and the supply—it is known only as a recourse in times of extreme poverty, and is generally eaten in loathing as light food, and with ill-suppressed longing for the flesh which is supposed to be preferable, if only it could be procured. In short, by a regrettable concurrence of adverse circumstances, fish is placed in a false light as an element of food, and regarded from a wrong standpoint. We do not propose to discuss the properties of fish as food in any scientific detail. It is unnecessary to do this, because the profession is fully alive to its nutrient value. Turning to BEAUMONT'S Tables, which within certain limits—that is to say, looking only to those processes that take place within the *stomach*—are still of admitted authority, we find that some varieties of fish are of pre-eminently high or rapid digestibility; and, speaking generally, the flesh of fish is more easily—or perhaps we ought to say more quickly—digested than that of warm-blooded animals. The only point on which we are particularly anxious to insist is the fact that whereas it is sometimes alleged against the use of fish as common food that it is deficient in the heat-producing and maintaining elements; this impression is in a great measure due to a very general failure to notice the essential difference between two great classes of fish, which may be roughly taken to group, as regards nutrition-value, with the salmon and the cod respectively. In the case of salmon, mackerel, herrings, eels, and certain other fish, which may be arbitrarily thrown together for our present purpose, the fatty matters are distributed throughout the body, and therefore enter into the flesh, whereas in the case of the cod, the sole, whiting, and other classes of fish, the oil is practically collected in the liver, and by eating the flesh alone it is lost. In great measure—though, it must be admitted, not entirely—this constituent arrangement accounts for the differences which are recognised by analysts between the several descriptions of fish. Thus PAYEN, in his "Précis Théorique et Pratique des Substances Alimentaires," gives a "Tableau des quantités d'azote, de carbone, de matière grassé et d'eau dans 100 parties de différentes substances alimentaires," in which the freshwater eel is shown to have "graisse" 23·86, the herring 12·72 or 10·03, the mackerel 6·76, the salmon 4·85, while the cod has "graisse" only 0·38, the whiting the same, the sole 0·25, and so on. These important differences are, as we have said, almost explained by the circumstance that in the cod and certain other fish the oil is treasured principally in the liver. The obvious conclusion must be that fish which are poor in fatty elements as regards their flesh should be dressed whole or, in preparing them for the cook, the liver, at least, ought to be carefully retained. From the *gourmet's* point of view this is of the highest importance, not merely as a matter of economy in nutrition, but in point of taste. The liver of the cod, for instance, is extremely delicate in flavour. It is inconceivable how anything so loathsome, to most palates, as cod-liver oil can have been prepared from an article of food as appetising as the cod's liver. If the obvious precaution of *always* eating the liver with the flesh were taken in the case of those descriptions of fish which are deemed dry and devoid of fatty elements, the impression that fish is not available as a common staple of food would be, to a great extent, removed.

Looking at the matter from a more general and experimental point of view, it seems that the flesh of fish might be substituted for that of the warm-blooded animals to a large extent, if not wholly, with gain, instead of loss, to the population. It has long been known to practical observers and students of dietetics that not only may the physical strength be fully maintained, but even in the coldest and most variable climates the animal heat will be duly supported, on a diet of fish. Those who have carefully noted the results of feeding largely on fish, and almost or entirely abandoning butcher's meat, even go a step further than this, and affirm that a larger reserve stock of strength is accumulated during a period of "living on fish" than on a diet of which the flesh of warm-blooded animals forms a prominent element. They account for the fact by asserting that fish is less stimulating, and that there is a smaller loss of strength in fruitless or neurotic excitement while using it as common food than when living on "meat," or even a mixed diet. Without committing ourselves to this opinion, it may be conceded that in so far as the view expressed is a

just one, and founded on facts carefully observed and reported without prejudice, it would certainly appear that fish may well be the common food of a nation which is in a special sense brain worked and worried. We are not disposed to adopt or endorse the opinion that fish has specific qualities as food for the brain or nervous system; nor do we lay much stress on the hypothesis that because it may sometimes be rich in phosphorus it must therefore be of exceptional value as supplying sustenance for the organ of mind. Setting aside these "special" views, we are free to emphasise, and are anxious to enforce, the demand for such reforms as would place fish within reach of the whole population, and enable the people to regard it as a common staple of food. One of the first and not least important effects of obtaining cheap fish, and its common use as food, would be a powerful counter-movement against the butchers' monopoly, with the result of securing a better supply of meat at reasonable prices. As soon as it is known, and shown, that good fish can be supplied at something like twopence or threepence a pound, and that this staple will suffice for the sustenance of the population, the purveyors of meat will find it compatible with their commercial interests to reduce their prices. It is, perhaps, not reasonably to be expected that they will do this until a large reduction is rendered necessary by the exigencies of trade. The first step on the lines of the reform obviously indicated must, certainly, consist in the provision of markets for the rapid sale of fish in the metropolis and other populous districts. But more than this is essential; the markets provided must be *free* as well as numerous. At present it is notorious that fish are thrown back into the sea, or allowed to rot and sold as manure, rather than sent to London and the other large cities. This is not alone because there is a deficiency of market space, but because the contracts subsisting between fisherman and salesman are of a nature to enable the latter to limit the supply, and so keep up an artificial tariff of prices. No remedy for the present state of matters can be effectual which does not cover the whole field of the difficulty. Our warm support will be given to any project which holds out a fair promise of redress from the grievance of which the population has now a right to complain.

THE Preliminary Census Report recently presented to Parliament contains a detailed summary of the results of the Census in April last. The enumerated population of the United Kingdom was 35,246,562, showing an increase of nearly three millions and a half, or 10·7 per cent., upon the counted numbers in 1871. The increase was equal to 14·5 per cent. in England, 11·7 in Wales, and 11·1 in Scotland; whereas in Ireland there was a decrease equal to 4·7 per cent. During the decade 1821–31 the population of Ireland increased at the rate of 14·2 per cent., whereas in the ten years ending 1851 (including the famine year, '1847) it showed a decrease of 19·8 per cent. This decrease of population in Ireland has continued during the thirty years since 1851, but, fortunately, at a steadily declining rate, the percentage of decrease having been successively 11·8, 6·7, and 4·7 in the last three decades. In consequence of this marked decline in the population of Ireland, the increase of the population of the United Kingdom in the ten years 1841–51 fell to 2·5 per cent.; it has, however, since increased steadily, and was, as we have seen, 10·7 per cent. in the ten years ending April last.

The report just issued deals mainly with the results of the Census in England and Wales, as separate reports have been published, by the Registrars-General of Scotland and Ireland, relating to those parts of the United Kingdom. The enumerated population of England and Wales at midnight on 4th April last was 25,968,286, and showed an increase of rather more than three millions and a quarter, or 14·3 per cent., upon the number returned in 1871. The rate of increase, which was 14·5 per cent. in the ten years 1831-41, fell to 11·9 in 1851-61, since which it rose to 13·2 in the ten years 1861-71, and further increased to 14·3 in the more recent decade. The report before us points out that the rate of increase in the aggregate population of England and Wales is almost entirely determined by the birth-rate and death-rate, the effect of emigration and immigration being comparatively insignificant. It is shown that the population of England and Wales in April last, calculated from the numbers of births and deaths registered since the preceding Census, would have been 26,138,248, which is only 169,962 in excess of the population enumerated; this difference may be taken to represent the loss to the population of England during the decade arising from the excess of emigration over immigration. It is interesting to note that the number recently enumerated, if raised to the middle of this year, shows an excess of 256,484 upon the estimated number which was calculated in accordance with the rate of increase that prevailed in the preceding decade 1861–71. This arose from the fact, already stated, that the rate of increase of the English population was greater during the last than in the preceding decennium whereas the rate of increase had been assumed to be stationary. The main cause of the recently increasing rate of increase of the English population is still more satisfactory than that fact of itself. It has been partly due to an increase of the birth-rate and a decrease of emigration; but by far the most powerful factor in the production of this rapid growth of population during the past decade has been the marked decline in the death-rate. The annual rate of mortality, which had been practically stationary at 22·36 during the three decades ending 1870, declined to 21·27 in the ten years 1871–80. This decline in the death-rate during the past ten years implies, as the Registrar-General points out in the Census report under notice, the survival of 299,385 persons who would have died had the mean rate of mortality in the preceding thirty years been maintained. It is fortunately no longer possible for those who on economical grounds are always proclaiming the uselessness of sanitary effort to point to a stationary death-rate in support of their mischievous assertion. The full import of this decline in the death-rate can only be realised if two facts are fully taken into account. In the first place the greater part of the decline occurred during the latter half of the decade, when the Public Health Acts of 1872 and 1875 had come into full operation; and, secondly, the decline occurred despite a marked increase of aggregation in towns, which, unless counteracted by improved sanitary organisation and administration, would inevitably have caused an increased mortality. In 1861 there were 165 dwellers in towns to 100

living in rural districts; this proportion of town mortality rose to 184 in 1871, while in April last it had further increased to 199. At the present time the urban population of England and Wales is very nearly double the amount of the rural population.

There are many interesting aspects of these Census figures touched upon in this Preliminary Report, some of which we may have to refer to. They especially suggest one unavoidable conclusion. Bearing in mind the wide range of important statistics of which trustworthy population figures are the indispensable basis, it is eminently desirable that a quinquennial instead of a decennial Census should be taken in England and Wales. A quinquennial Census is taken in France and Germany, and it is not difficult to urge reasons for similarly shortening the Census periods in the United Kingdom. The general and local interest displayed in the results of the recent Census evince a marvellous increase of national intelligence on the subject during the past hundred years. In the opening of the Preliminary Census Report it is stated that when, in 1753, the proposal for a national Census was first made in the House of Commons, one of its principal opponents, a Mr. THORNTON, member for the city of York, used the following words: "I did not believe that there was any set of men, or indeed any individual of the human species, so presumptuous and so abandoned as to make the proposal we have just heard." It is matter of history that this Census Bill was rejected, and that the first national Census was not taken till the first year of the present century. Since 1801 a decennial Census has been taken, and now that we have nearly a thousand towns and urban sanitary districts requiring trustworthy population figures as a basis of vital statistics, it seems full time that the inter-census period should be shortened.

SINCE experimental physiology has demonstrated the differentiation in function of the several regions of the cerebral cortex, anatomists have naturally sought to discover structural differences corresponding with those in function which have been proved to exist, and more definite and localised than the regional differences ascertained by LOCKHART CLARKE and MEYNERT. The researches of BEVAN LEWIS constituted an important step in this direction, but the most extensive investigation of this character is that of which Professor BETZ of Kiew has just published a preliminary account in the *Centralblatt für Med. Wissenschaften*. A brief outline of the conclusions may be welcome to our anatomical readers, especially since the terms employed by BETZ, partly his own, are so different from those employed in our own text-books as to render his statements somewhat unintelligible to the ordinary reader. In giving an account of his researches we shall therefore translate his terminology into that in common use in this country.

The conclusions are based on about five thousand preparations which he has made of the different parts of the brain of individuals of various ages, both sexes, and of embryos. He finds that almost every small area of the cerebral surface, whether definitely limited or part of a large convolution, presents a special structure. The peculiarity consists either in a difference of one or more of the five elementary layers of the cortex, which may be thicker or thinner, or separated by nerve elements which do not correspond to the general type, or some of the layers may be entirely absent. It will be remembered that of the five layers the first consists of a network of neuroglia with some granular corpuscles, the second contains small pyramidal ganglion cells, with their bases towards the deeper layers; the third contains similar cells, three or four times as large, fewer in number and farther apart. The fourth, or nuclear layer, consists of small round or elliptical cells, while the fifth contains peculiar fusiform elements. Of these layers the third is that in which the greatest variations obtain. In some regions considerable variation exists in different individuals, or in the two sides of the same brain. There are, however, other localities in which the structure is remarkably uniform, and these are the ascending frontal convolution, the gyrus fornicatus, the uncinate gyrus, the third frontal convolution, and the anterior extremity of the temporal lobe. In the lower part of the ascending frontal convolution, large cells make their appearance above the fifth layer, arranged singly or in pairs, and separated by considerable interspaces. Towards the middle of the convolution these cells are grouped in nests of, at first, three or four, and a larger number higher up the convolution, and they are seen also in the third layer in a close series, and similar isolated cells occur also in the second and fourth layers. Near the longitudinal fissure these cells are again grouped in nests, and on the adjacent part of the marginal convolution they increase in size, until they become what have been termed giant cells. These are never found in the ascending parietal convolution, except in adults, in the highest part of the gyrus, but they extend as far as the bottom of the fissure of Rolando, which separates these two convolutions. The gyrus fornicatus at its commencement consists only of two layers, the upper and the fifth; the pyramidal cells of the second layer are few, and small in size. The fifth layer possesses the peculiarity that the cells are not arranged, as elsewhere, parallel to the surface of the convolution, but at right angles to it, just as are the cells of the third layer in other convolutions. These cells are also two or three times as large as those of this layer elsewhere. Near the genu of the corpus callosum they are also found in the second layer. At the middle of the convolution, the nuclear layer, and the pyramidal cells of the middle layer, make their appearance, but the latter cells are smaller than elsewhere. In the posterior portion of the gyrus three new layers are discoverable. The lowest consists of longitudinal fibres which form a curve around the upper part of the corpus callosum; the second grey layer consists of small round cells, and the third of pyramidal and spindle-shaped cells, of considerable size. These layers increase in size towards the posterior extremity of the convolution, and where it passes into the uncinate gyrus the layer of large cells suddenly increases in size, and becomes the well-known inner layer of the pes hippocampi, while the nuclear layer of the latter is formed by the new nuclear layer just described, and the layer of longitudinal fibres courses over the surface of the pes and forms its so-called white nuclear substance. The whole end of the temporo-sphenoidal lobe possesses the peculiarity that in it the pyramidal cells of the third layer are found immediately beneath the first layer, where they lie in large round aggre-

gations, separated by considerable intervals. The cells are disposed one to another in a very peculiar manner, resembling skeins of thread, and hence BETZ has termed them *glomeruli corticales*.

In the third frontal convolution three distinct regions can be recognised, characterised by a different structure. The first extends from the extremity of the ascending parietal convolution to the anterior limb of the fissure of Sylvius, and here the pyramidal cells of the third layer are larger than elsewhere in the frontal lobe, and a few giant cells are met with, but only in adult brains. The second region extends to the commencement of the orbital portion of the convolution, and here the second layer contains small long pyramidal cells so aggregated that their apical processes incline one to another and are mingled in a plexus. The anterior portion of the convolution contains many cells of the type of those of the fifth layer, similar in size to the cells of the claustrum.

In the island of Reil also pyramidal cells of small size, with long processes, are aggregated in groups, and larger cells only make their appearance in the neighbourhood of the operculum in adult brains. No less than eight distinct layers are to be distinguished in the posterior part of the uncinate convolution, beneath the calcarine fissure, in spite of the fact that the grey cortex is narrower here than elsewhere. Beneath the neuroglia layer we have layers which are successively characterised by small pyramidal cells, nuclei, longitudinal fibres coursing to the base of the cortex, a second series of nuclei, a second series of longitudinal fibres, triangular pyramidal cells separated by wide interspaces, and spindle cells corresponding to the fifth layer of the ordinary type. In the second layers of nuclei and longitudinal fibres there are, at some places, pyramidal cells. A similar structure is found also at the inner side of the cuneate lobule, and at the whole extremity of the occipital lobe. The second and third layers of pyramidal cells (of the ordinary type) are found throughout the outer surface of this lobe, including the posterior part of the angular gyrus, and the superior annectant gyrus, in which the cells of the third layer are much larger than elsewhere, and these convolutions are sharply differentiated from the posterior extremity of the superior tempero-sphenoidal convolution. In some adults the third layer in the angular gyrus is sometimes divided into two by a layer of smaller pyramidal cells. The superior and inferior parietal lobules, and the ascending parietal convolution, present the ordinary typical structure, but in the third layer of the latter in its upper half there may be large pyramidal cells.

The three temporal convolutions are characterised by their thick fifth layer, and by the small size of the cells of the third layer. In the two temporal convolutions, which are concealed within the fissure of Sylvius, the structure is similar to that of the ascending parietal, and a few small giant cells are present. The arrangement in the quadrate lobule is similar to that in the superior parietal lobule, but, in its highest part, two rows of pyramidal cells are present, one in the third and the other over the fifth layer. The upper and middle frontal convolutions are characterised by a very thick third layer, with large pyramidal cells, while the fourth, or nuclear layer, is very small in the highest and larger in the middle convolution. The gyrus rectus (inner orbital convolution) resembles the anterior part of the gyrus fornicatus, and the remaining orbital convolutions resemble the anterior extremity of the frontal lobe, but the nuclear layer preponderates over the others.

Such are the general differences in structure of the convolutions. To what extent are they influenced by sex and age? In females the three frontal convolutions have a smaller third layer, with fewer pyramidal cells in it, and so also in the ascending frontal convolution. The giant cells are smaller and less numerous.

In a fœtus of seven months only two layers, the first and the fourth, were visible. The former was relatively very large, and the nuclei of the fourth were so massed together as to resemble the nuclear layer of the cerebellum. Only in the pes hippocampi could any pyramidal cells be discovered; and at birth this part alone possesses its fully developed structure. Elsewhere very large pyramidal cells are visible only in the paracentral lobule—i.e., in the posterior part of the marginal convolution, in front of the quadrate lobe; but these cells are found also in the ascending frontal convolution at six weeks of age, when the pyramidal cells of the third layer appear in many parts of the cortex. At eleven and fourteen years of age the giant cells have acquired some processes, but the apex process is still small and pale, and the basal process unrecognisable.

These results were compared with the structure of the brain of several adult idiots. In one case, that of a well-known idiot named MOTTÉ, it was found that, in the frontal convolutions, large but narrow pyramidal cells were so irregularly distributed that it was almost impossible to distinguish the five layers. The giant cells of the central convolutions were small and narrow, and had no basal process. In the posterior half of the brain there was everywhere a well developed nuclear layer, and a narrow and ill developed pyramidal cell layer.

These extended and careful investigations seem to show clearly that the anatomical structure of the brain is in perfect harmony with the conclusions from physiological experiment regarding the differentiation of function in various parts. They show also the important fact of the long continuance of the developmental process; that the cerebral cortex of young persons has an imperfect structure, and is only completed with mature years. A single convolution may possess such differences in the component elements in different parts that it evidently contains a series of distinct organs. The smaller sulci are subsidiary characters, facilitating the supply of nourishment to the brain and increasing its surface, but have no necessary relation to limitations of structure; while the large deep fissures usually correspond to a sharp limitation of structure, the latter may exist without any bounding fissure, as, for instance, in the third frontal convolution, as already stated. Hence the anatomy of the surface of the brain as usually described and taught, based on arrangement of the smaller as well as of the larger fissures, has little correspondence with the real anatomical arrangement.

BETZ promises us an atlas of the true anatomy of the surface of the brain, which will, without doubt, be of the highest scientific importance, although a formidable addition to the facts which the teacher has to teach, and the student to learn.

THE introduction of anything like commercial principles into the hospital system of this country is a step that ought to be very well considered, and even severely criticised, before it is regarded as one to be followed or extended. The advocacy of such a step generally proceeds from those who regard hospitals from a social or political point of view. They look upon hospitals as demoralising institutions in which the patients are taught to depend on others and not on themselves, and in which they become so enamoured of the advantages of sickness as to cherish it. This view of a hospital is, to say the least, novel. Hitherto hospitals have been considered the very glory of our Christian civilisation, and the collection of £30,000 in one day from the churches of London shows that the old-fashioned idea of a hospital, despite political economists, is still predominant. Such is the transcendant claim of hospitals on all people who have a penny or a pound to spare, that we regard even £30,000 in one day as inadequate. And so it is. It would be certainly doubled if we could take the congregations through the wards before the collection, so as to enable them to realise the care and the kindness with which the sick are ministered to in them. But though it be still too small, let there be no misconception as to its significance. If anybody is disposed to make light of it, let him try to get half the amount for any other conceivable purpose. We still adhere to the old view of our hospital system, and we are prepared to defend it. There should be, of course, every reasonable precaution taken against its abuse: and well-to-do persons may reasonably be referred to those pay hospitals which are confessedly established on commercial principles, and intended to pay their promoters 5 per cent. or more. With such institutions we have no fault to find so long as they deal impartially with members of the profession, and subordinate the hotel purpose to the therapeutic, the failure to do which threatens seriously to lower the reputation of certain hydropathic institutions of the country. Pay hospitals, in the commercial sense of the word, are private ventures, and as such we think they ought to be left. They should stand or fall on their now merits as commercial enterprises, and the public should not be appealed to on their account as if they were charitable institutions.

But, for ourselves, we have no wish to see our great hospitals cease to be charitable institutions. We are not much impressed with the evidence adduced of any great abuse of our hospital system. In the out-patient department there is room for improvement. Over six hundred out-patients a year for the last two years seem to have been weeded out at St. George's by a more careful system of receiving such cases. But it is notorious that very little of our hospital expenditure goes in that direction. Besides this, it appears to us very doubtful whether some of the devices for the wholesale treatment of the poor on low terms are not calculated to demoralise them more as regards their reverence for medicine than the gratuitous system of our out-patient hospital system, supplemented as it often is with some personal and family relation to a medical man, to whom more is doubtless paid under the old system in the year than is now paid under various misnamed provident arrangements. What is likely to be the feeling of a man to his medical adviser who bargains for medical attendance and medicine at a shilling a week? In another column we allude to the system of remuneration practised in one of those large Friendly Society Medical Institutes in which the rate of pay seems to us to be like what sixpence a day for wage might seem to a carpenter or other mechanic. In all this we must not be understood to detract in the slightest degree from well-ordered provident arrangements for the ordinary medical emergencies of a working-man's life. These are to be highly encouraged; though judging from the schemes patronised by some of our Charity Organisation Society philosophers, ordinary professional services are thought of very little value. According to our view of a hospital, speaking especially of the in-door treatment of cases, it is essentially a charitable institution. The poor cannot recompense either the governors who provide the bed, board, and nursing, or the skilled physician or surgeon who gives his professional services gratuitously. The introduction of a small payment or pittance spoils the transaction, and degrades feeling on both sides. How is a physician to be repaid by a hospital patient whom he guides skilfully through a pneumonia or a pneumothorax, or a surgeon by a mechanic whose life he has saved by tying an artery, or operating for hernia? Far better for each party to accept the transaction as one of kindness, leaving no obligation on the patient other than one of gratitude to the hospital and to the particular individual who has been his signal benefactor, and reverence to the profession to which he belongs. It may be said that at any rate one of our hospitals has introduced the pay principle and that nobody is the worse for it. The time is not yet come for an estimate of the working of the pay wards in St. Thomas's Hospital, though, through the courtesy of the resident medical officer, we have lately had an opportunity of seeing them. Everybody knows that the alternative in this particular case lies between using these wards on a commercial principle, or not using them at all. They are virtually the private lodgings of the patients for the time being, to be had at 8s. a day; or, in case of single rooms, 12s. a day. The demand for such accommodation in the course of time in this huge community is likely to grow. Meantime it is not great, and of the forty beds devoted to this experiment it has never happened that the whole have been used. The patients are attended at their own option either by the resident medical officer, or by their own adviser outside, or by both in consultation.

WE publish in this week's number of THE LANCET a Map of the distribution of medical relief within the metropolitan area. It illustrates one portion of the series of papers "On Hospitals," which have recently appeared, and are still continuing to appear, in our pages from the pen of Dr. FREDERIC J. MOUAT. Considered by itself the Map alone shows at a brief glance the extraordinary incongruities which characterise the distribution of hospital accommodation for the relief of sickness over the metropolitan area; but considered with the aid of Dr. MOUAT'S observations (p. 78) on the organisation of medical relief in the metropolis, it enables us to grasp more fully than has hitherto been possible a subject which has long occupied the minds of many, but which has hitherto proved the despair of statesmen and philanthropists alike. Dr. MOUAT, indeed, does not pretend to afford a

solution to the numerous complicated questions with which the subject bristles, but he enables us more fully to apprehend the various important issues which lie before us in contemplating it, and especially the enormous waste of power exhibited by the arrangements for medical relief in the metropolis, as they are now organised. Beyond this he obviously thinks it would be impossible to go at present in search of a clue out of the labyrinth of difficulties we have become involved in, by dealing in the customary haphazard fashion with questions of medical relief, without such help as we alone could get from a Royal Commission, which would prepare and digest the information needed for the guidance of the Legislature—a proposition we are fain to assent to, but which we must confess reads almost as a confession of despair of elucidating the question. But no part of the great subject which Dr. MOUAT is now engaged in discussing demands more attention, and deserves closer consideration, than that of the medical relief of the metropolis, and the additional light he throws upon it is as welcome as valuable. It would be superfluous to do more than refer to the papers on the construction and management of hospitals which have preceded Dr. MOUAT'S present paper. Our readers will have been struck with the amount of information they contain, and which is especially valuable from being so largely derived from sources that are not readily accessible, and from Dr. MOUAT'S extensive personal observation.

Annotations.

"Ne quid nimis."

THE ATTEMPTED ASSASSINATION OF PRESIDENT GARFIELD.

ALTHOUGH nearly a fortnight has elapsed since the occurrence of the dastardly attempt on the life of the President of the United States, and the daily papers have published pages of telegraphic reports of his condition, it is important to "make haste slowly" in drawing scientific conclusions from brief bulletins and scraps of conversation. The world moves so fast that it was almost at once decided by the public that if a fatal termination did not come on within the first week recovery was certain, and the interest in the case has notably flagged. We shall, doubtless, before long be in possession of all the scientific details of the case, and meanwhile we are compelled to speak with some hesitation upon the points of the case which seem worthy of attention. It is well to separate the ascertained facts of the case from the inferences drawn by those in attendance. The facts are few. The bullet is known to have entered the back on the right side of the spine close to the vertebræ, between the tenth and eleventh ribs, to have struck and slightly fractured one of the ribs, and to have been then deflected to the right. Its further course is mere inference so far as the telegraphic despatches inform us. The primary shock was severe, and even alarming, but reaction set in, and for several days there was a freedom from all bad symptoms, but the temperature remained pyrexial, and the wound has suppurated. The renal and digestive organs have not shown any signs of injury. The most important inference that has been drawn is as to the course taken by the bullet. It is notorious that unless the course can actually be demonstrated, it is impossible even when apertures of entrance and exit are present, to assert what it has been in any given case, and the difficulty is still greater when only one aperture is presented. The further fact that by a superficial exploration it was found that the ball struck a rib and was deflected by it, renders it hazardous in the extreme to conclude that it passed forwards through the liver. So far as our evidence goes at present there is nothing against the assumption that the bullet has passed along the rib and between the muscular planes of the abdominal wall; while the absence of free hæmorrhage, of jaundice, and of peritonitis, although not conclusive, are facts strongly in support of this view. Further, if the ball has taken a course straight forward it must have pierced the pleura and diaphragm as well as the liver and peritoneum, and there is no mention of any sign of pneumothorax, pleurisy, or injury to lung, in our present information. A wound of the liver, although greatly adding to the danger of the injury, by no means renders the case hopeless, as the sixty-two cases quoted in the Medical and Surgical History of the War of the Rebellion, and many other facts, show. And the special risks of such a wound—hæmorrhage and peritonitis—may fairly be considered to be past. The dangers now to be feared are suppuration along the track of the bullet and blood poisoning. The former is caused by the bruising of the edges and walls of the wound, and by the irritation of foreign matters carried in by the bullet. We are told that this process is established, and that the discharge is so abundant that the dressings require removal twice in twenty-four hours. Much depends upon whether the suppuration is occurring all along the path of the bullet, and whether the outlet for it in its whole course is free and unimpeded. An abundant external discharge is no sure guarantee that the deeper parts are efficiently drained, and if the ball has really traversed the liver and peritoneal cavity—which we see no reason to believe—and is lodged in the wall of the abdomen, there is great risk indeed of pocketing of matter and suppurative peritonitis; while if the course was that suggested above the danger is rather of purulent infiltration between the abdominal muscular parietes. The persistent pyrexia, and the rise of temperature after the first week (to 102·8° on the tenth day), and the quickened pulse, are facts which are only too suggestive of some deep suppuration without free external vent, and are sufficient to cause anxiety, and entirely negative an unqualified hopeful prognosis. In reference to the question of blood-poisoning, it has to be borne in mind that its cause is absorption of some product of decomposing animal material. This decomposition may be excited by foreign matters introduced at the time of the injury—clothes &c., but not the bullet,—or allowed access to the wound subsequently. Against such dangers we are told the surgeons in attendance are using the precaution of applying the "antiseptic dressing." Unfortunately, this is a vague term; it may mean much or little. Certain it is that no external application of carbolised gauze would have any influence upon septic material deep in the wound, if such there be; and it is most misleading to the public, and unjust to Listerism, to assert that the mere use of an antiseptic dressing "will secure immunity" from "the decomposition of the discharges and their absorption into the circulation." Gunshot wounds differ so materially from common accidental or surgical wounds, that we cannot argue from the one to the other. The pain in the foot and ankles complained of by President Garfield must, no doubt, depend upon some injury to nerve-trunks close to the spinal cord, and it is well to remember that no nerve going to the foot arises higher than from the second lumbar nerve, which lies considerably away from the supposed track of the bullet. The questions connected with this problem are such that they can only be discussed with advantage when we are in fuller possession of the actual facts. Meanwhile we must refuse to join in the general sense of assurance as to President Garfield's recovery, and would urge that such assurance is quite out

of place until the temperature is persistently normal, suppuration has ceased, and the position and harmlessness of the bullet ascertained. That such a condition may speedily be established is our earnest hope, and the latest news is such as to encourage us in that hope.

THE WINDSOR REVIEW.

THE success which attended the assembling of 55,000 volunteers in Windsor Park for review by Her Majesty must be a subject of sincere and general gratification. The whole affair went off without a single hitch. The railway arrangements were admirable, and the military authorities, profiting by late events, exerted themselves most successfully to carry out their part of the performance. As the troops arrived in Windsor Park the men were allowed to fall out and enjoy the shelter of the trees till the time arrived for them to fall in for the review. The various corps provided themselves with food, and a copious supply of cold water was arranged for them by the military authorities. Both at the railway stations on the various lines, and in Windsor Park, this necessary article was provided in abundance. In case of any shortcoming on the part of volunteer corps in the way of bringing the necessary food with them, Sir Garnet Wolseley, Quarter-Master General, had an ample supply of preserved meats and biscuits sent down in army service corps waggons, but judiciously refrained from letting the fact be known beforehand for fear of engendering improvidence. The medical arrangements were carried out under the direction of Surgeon-General Shelton, and were all that could be desired. A field hospital was pitched in the rear of the rendezvous of each army corps, one under the charge of Surgeon Westmacott of the London Scottish, and the other under Surgeon Lydall, of the Central London Rangers; the bearer company, made up to a strength of 110, was under the command of Surgeon-Major Gasteen, A.M.D., and the stores and medical comforts were under the charge of Lieutenant McKay, A.H.C. Each field hospital consisted of eight field hospital tents, three ambulance waggons, 126 stretchers, two water-carts, one general service waggon, and one set of field paniers containing medical appliances and comforts. A supply of ice to the amount of 115 cwt. was provided for the use of the sick. Most of the volunteer medical officers were mounted, and were thus enabled to render assistance when required without delay—a lesson which might be advantageously turned to account in the medical department of the regular army. It is extremely gratifying to be able to record that among all this immense assemblage of volunteer soldiers not a single case of drunkenness was observed. The conduct of the men and their cheerful submission to discipline were beyond all praise. From the nature of the review—a march past, with no artillery practice, cavalry manœuvres, or even infantry firing—it was not anticipated that there would be many casualties from accidents or a large amount of sickness, but the authorities were none the less aware that so large a force as 55,000 men could not be brought together from all parts of the country without a certain proportion falling out from sickness, even if of a trifling character. The semi-tropical heat of the weather in the early part of the week, and the unfortunate deaths from sunstroke at Aldershot on the Monday, gave warning that cases of sun fever and other disability arising from great heat might be looked for. The Volunteer Ambulance Department expressed a wish, through their able and energetic hon. secretary, Lieutenant Maclure, of the London Scottish, to form a bearer company for the review, and, as stated above, Surgeon-Major Gasteen, Army Medical Department, was entrusted with the command. The men composing it were all trained and certificated stretcher bearers, and to ensure success in their work Surgeon-Major Gasteen had devoted several Saturday afternoons to drilling them at the Wellington Barracks. On the Saturday previous to the review Major-General Higginson commanding the Home District, inspected the company, and expressed himself highly pleased with their smartness and efficiency. Their position at Windsor was laid down in the official programme to be immediately behind the 2nd Army Corps, and they accordingly marched past Her Majesty after the 2nd Gloucester Rifles, which corps was the last to file by of Sir Daniel Lysons' Division. The supply of good drinking water at different parts of the ground, readily accessible to the men, was found to be a great boon, ice also was freely distributed, and to these precautions may be attributed the small amount of sickness from heat. The total number of admissions to hospital was 150, of these only some ten cases were at all serious, and were returned as sunstroke; the remainder were chiefly diarrhœa, cramps, fainting, exhaustion, sickness, and other minor ailments that rest and medical treatment speedily alleviated. The worst cases were all able to be moved to their homes the following day. The stretcher detachments of the bearer company proved most useful in carrying men unable to walk to the field hospitals. In addition to these arrangements for the care of the sick on the review ground itself, the War Office authorities detailed an officer of the Army Medical Department, with a non-commissioned officer and two trained orderlies of the Army Hospital Corps, to be present at each of the railway stations where the troops arrived to give assistance to any requiring medical aid. Each party was supplied with medicines, medical comforts, water, stimulants, and ice, and, in some cases, this aid proved most useful. It will be seen that every effort was made to provide against sickness or casualties, and the Volunteer Ambulance Department is to be congratulated on the success of its arrangements.

THE BRITISH MEDICAL ASSOCIATION AND HOMŒOPATHY.

AT the nineteenth anniversary meeting of the Provincial Medical and Surgical Association held at Brighton in August, 1851, one of the subjects alluded to by Dr. Jenks in his address as president was what he called "treachery within" the ranks of the profession, in relation to homœopathy. Subsequently, at the instance of Drs. Cormack and Ranking, a committee was appointed "to report on the course proposed to be adopted in reference to that matter." Next day the following "Report on Irregular Practice" was presented:—

"Your Committee have, after consultation with numerous members of the Association, maturely considered the subject referred to them, and beg respectfully to suggest the adoption of the following resolutions:—

"1. That it is the opinion of this Association that homœopathy, as propounded by Hahnemann, and practised by his followers, is so utterly opposed to science and common sense, as well as so completely at variance with the experience of the medical profession, that it ought to be in no way or degree practised or countenanced by any regularly educated medical practitioner. 2. That homœopathic practitioners, through the press, the platform, and the pulpit have endeavoured to heap contempt upon the practice of medicine and surgery, as followed by members of this Association and by the profession at large. 3. That for these reasons it is derogatory to the honour of members of this Association to hold any kind of professional intercourse with homœopathic practitioners. 4. That there are three classes of practitioners who ought not to be members of this Association—viz., first, real homœopathic practitioners; secondly, those who practise homœopathy in combination with other systems of treatment; and thirdly, those who, under various pretences, meet in consultation or hold professional intercourse with those who practise homœopathy. 5. That a committee of seven be appointed to frame laws in accordance with these resolutions, to be submitted to the next

annual meeting of the Association. Resolutions 6 and 7 were thanking the Colleges of Physicians and Surgeons and the Universities of Edinburgh and St. Andrews for their consistency; and 8 referred to the publication of the resolutions. 9. In proposing these resolutions for the adoption of the Association, your Committee are anxious to state that they are actuated by a strong sense of the importance of the subject in its relation both to humanity and morals. They most conscientiously believe that the countenance afforded to the form of charlatanry herein alluded to is detrimental to the true interests of the public, as it is subversive of that strict integrity which ought to characterise practitioners of medicine, and which has ever distinguished the profession in these kingdoms.—John Rose Cormack, M.D.; James Tunstall, M.D.; W. H. Ranking, M.D."

Several influential members of the Association spoke, and the resolutions were "carried unanimously." In the following week the journal of the Association wrote with evident pride of this step: "Its *honesty* was triumphant at Brighton. The most subtle forms of quackery may not be allowed to pollute any of its members. The resolution, which will prove the deathblow to homœopathy, was passed unanimously. Every medical body must assume this tone, or it must perish; no half measures will suffice." The committee appointed presented their report the following year at Oxford, from which we extract the following:—

"2. That when any member is convicted by the Central Council or by any of the Local Councils, of publicly professing homœopathy, or of holding professional intercourse with a homœopathic professor or practitioner, this conviction, along with the necessary proof of its justice, shall be officially reported by the secretary of the Central Council, or by the secretary of any of the Local Councils, to the next ensuing anniversary meeting of the Association; that it shall then be competent for the meeting, provided there be a concurring majority of two-thirds of those present, to direct the president in the chair to erase the name of such convicted member at once from the roll of members; but that it shall likewise be competent for the meeting by a simple majority, either honourably to acquit the accused, or to accept from him, in entire satisfaction for his conduct, an expression of regret, and a promise not to repeat it; or to postpone final judgment till the next anniversary meeting."

This report was received and adopted. The Provincial Medical and Surgical Association has grown into the British Medical Association; has it outgrown this boasted honesty? Are these resolutions and by-laws, passed unanimously in 1851 and 1852, equally binding in 1881, or are they not? We are quite sure of this, that if the subject were raised for discussion in any form at the forthcoming meeting at Ryde, the general body of the profession would express itself in precisely the same words as those we have quoted. The resolutions of 1851 appear to us to be excellent, decided, straightforward, honest; but in view of recent events and expressions of opinion there is room for question whether, with increasing age, this Association, or rather some of its leaders, may not have lost part of their early zeal for "honesty" in professional conduct.

THE VOLUNTEER MOVEMENT AND TEMPERANCE.

IT is most satisfactory to note what we may claim as one of the excellent effects of the discipline to which volunteers submit themselves. There are some forms of submission and some kinds of discipline which are not mind-strengthening and cannot be claimed as contributory to the formation of an independent character; but the discipline of the volunteer movement and the submission of the volunteer are not of this nature. The subject does not make a final surrender of his will when he becomes a member of the auxiliary service. It is always in his power to withdraw at any moment, and the repeated annoyances to which he is necessarily exposed as a man under command, are so many provocatives or incentives to rebellion which, being resisted, exert an educationary influence on the mind and develop a faculty of self-control in the face of difficulties and under crosses and grievances. This self-control there is reason to hope and believe is of permanent advantage to the subject of a self-imposed and—which is more important—a self-perpetuated discipline. Not is it simply of use to him as a member of the volunteer corps, but as a citizen, and, above all, as a man. Making every allowance for the fact that volunteers are necessarily respectable and well disposed citizens to begin with, it is a subject for remark and congratulation that even on a high field day, when the demands on the physical endurance of the men are unusually large, and the marked and severe excitement to which they are subjected might be supposed to offer an excuse for indulgence in the use of stimulants, the corps throughout should be conspicuous for its temperance. This is, we say, a fact of especial scientific and public interest; it calls for acknowledgment, and may well form the subject of satisfactory comment. A salutary change has come over the spirit of the average Briton's dream of enjoyment during the last five-and-twenty years. The apostles and advocates of temperance, from the time of Father Mathew to the days of Sir Wilfrid Lawson, may be allowed their full credit for the reform accomplished; but we must ascribe a prominent part in the work, and accord a large share of the honour accruing to the result gained, to the indirect and collateral effect of the discipline which the volunteer movement has necessarily introduced, one to which no inconsiderable section of the able population cheerfully and continuously submit themselves.

FALSE MEDICAL DEATH CERTIFICATES.

THE large proportion of unqualified medical practice in many of the mining and manufacturing districts, which is as great an injustice to the ignorant poor as to the medical profession, would be impossible but for the facilities, unfortunately possessed by unqualified practitioners, for obtaining medical certificates which pass muster with registrars of deaths, by appearing to fulfil the conditions of the Births and Deaths Registration Acts. It is true that the issue of such false certificates is fraught with danger both to the unqualified practitioner who issues them and to the registered practitioner whose name they bear; but there are so many difficulties in the way of successful prosecution of the offenders that the dangerous system remains practically unchecked. One of the main difficulties in the way of prosecution is an instruction to registrars that "it is no part of a registrar's duty (except he has reason for believing the signature to be a forgery) to question the truthfulness of any of the statements contained therein, as the responsibility for such statements rests entirely upon the certifying practitioner." It is obvious that, without such an instruction, the relations between registrars and medical practitioners would be often unpleasantly strained. This instruction, however, prevents a registrar from raising the question whether a deceased person was really attended by the registered practitioner whose name is appended to the medical certificate produced for registration purposes. We note with satisfaction that the keeper of a so-called "People's Dispensary" at Manchester was a few days ago fined £5 for issuing a false certificate regarding the cause of death of a child that had been attended at this dispensary. The prosecution was instituted by the Superintendent Registrar of the Prestwich District, at the direction of the Registrar-General. The false certificate purported to be signed by a registered practitioner, who at the first hearing of the case stated in evidence that he had authorised the defendant to sign and issue the certificate. It was, however, alleged by the prosecution, and practically admitted by all parties, that the registered practitioner in question had not "attended" the child, although he stated that he had

'seen it." Sir J. J. Mantell, the presiding police magistrate, declared with reference to the contention for the defence, that the certificate was in fact true with the exception of the signature, that the certificate was "admittedly a false one," and that a practice more open to fraud and deception than that exposed it was impossible to conceive, as it struck at the root of the intention of the Act of Parliament.

INTERNATIONAL MEDICAL CONGRESS.

WE are requested to state that for the successful carrying out of all the necessary arrangements, it is essential that all who intend to join the Congress should *at once* notify their intention of so doing; and it is very desirable that all who can should sign their names and pay the entrance fee—one guinea—within the next week. It has been decided that the late M. Raynaud's address shall be read, as announced, at the General Meeting on Thursday, Aug. 4th, and Dr. Féréol has been entrusted with this task. A special general meeting will be held on Wednesday, Aug. 3rd, at 4.30 P.M., when Professor Virchow will deliver his address "On the Value of Pathological Experiment." The same afternoon the Members of the Congress will be admitted to the musical promenade of the Royal Botanical Society. It has been decided to hold *all* the general meetings in St. James' Hall. On Tuesday, Aug. 2nd, the President of the Odontological Society will give a conversazione at the Marlborough Rooms. It is desirable that members wishing to go to any of the entertainments, or to visit any of the private art collections or other objects of interest open to them during the week of the Congress, should put down their names without any delay in the book kept for this purpose at the College of Physicians. In all probability these lists will be larger than the number of invitations to be issued, and in that case a ballot will be taken, due preference being shown to the claims of our foreign visitors. The attendance at the Congress promises to be considerably in excess of that hoped for a short time ago, the number of names already received exceeding 1800.

A MIRAGE.

EVERYBODY knows that a mirage is at once the counterpart and the original of the natural phenomenon familiarised to the public as the Polytechnic ghost. In the artificially-produced "spectacle" the image is reflected with the aid of a strong light on to the polished surface of a plate of transparent glass, the *real* objects being seen *through* the glass, while the unreal or intangible object—i.e., the ghost—is reflected *upon* its surface as on a shop window. In the case of the natural mirage a mist or vapour takes the place of the glass, and it seldom happens that this mist or vapour is so rarefied or transparent as to admit of the objects behind it being seen through it. Generally, therefore, the picture of the mirage is optically substituted for those parts of the real land or sea scape which are shut out of view by the mist or vapour upon which the mirage is reflected. It is not easy to define the precise physical conditions which are essential to the production of a mirage; but, probably, there must be several strata of mist or vapour presenting smooth or sharply-cut surfaces, on different planes and at different angles. Thus there would need to be one nearly horizontal, and stretched above the object to be reflected, in such a manner as to receive the first reflection of the luminous picture, possibly projected from the glinting surface of the sea or a stretch of sand. From this over-hanging surface the image may be reflected directly on to the perpendicular, or nearly perpendicular, surface of the mist or vapour upon which it is seen as a "mirage." Or the picture may be reflected from surface to surface through several stages and processes before it reaches the surface upon which it is objectively displayed. It is easy to see how the under-surface of an expanse of cloud may constitute the first essential reflector; while the vertical edge or surface of a mist or vapour suspended over some tract of land or water, and sharply intercepted in front by a line of rocks, the shore-line of a lake or river, or a belt of trees, from behind which the mist or vapour rises, may form the perpendicular mirror for the mirage. A beautiful specimen of this phenomenon is reported to have been recently seen off the Irish coast at Killiney, near Dublin, at an apparent distance of twelve or fifteen miles. A long tract of land, with green fields, trees, farmhouses, with a headland studded with windmills and other objects, composed the details of the aerial picture. At the same time a reversed image of vessels was reflected on the sky near the horizon in the north-west. Beyond doubt the constitution and arrangement of surfaces must have been complex to produce the effects described, but the essential mode of their production is as we have stated it. One condition which commonly plays a prominent part in producing the result is doubtless special heat-distribution and radiation, which often produce a sharply defined difference of temperature and consequently of density between superimposed or adjacent strata of the atmosphere.

THE VALUE SET ON MEDICAL SERVICE.

THOSE who wish to study the new system of medical institutes, in which the object seems to be to get the work of twelve medical men done by two and to pay these two shabbily, should read the Report for the year 1880 of the Norwich Friendly Societies' Medical Institute. The facts are almost incredible. A few years ago we seemed to be on the point of getting medical attendance on club patients appraised at something nearer its proper value. But under the reign of such institutes as the above a most retrograde process is going on, which demands the serious attention of the profession. We can only give a few of the prominent facts as we gather them from the Report. If we make any error in statement or in inference we shall only be too happy to be corrected. The numerical strength of the institute is, exclusive of children, 7358. The number of children would, of course, be at least double that of the adult members. The total number of home visits for the year is 16,232. The total number of patients' visits at the dispensary to be seen and prescribed for is 59,329. The midwifery cases are 379, vaccination cases 268. Contrasting with these great numbers are the little payments. Families are attended for six shillings a quarter; members, male or female, for ninepence per quarter. These fees apparently include payment for midwifery work, vaccination, drugs, and the attendance of two medical men — J. H. Lyddon, L.R.C.S.I., L.S.A., and L.M. and Henry Watson, M.D. and C.M., the former resident, the other non-resident. The resident surgeon receives £300 a year, the non-resident £250. These sums do not include an honorarium of £10 for a holiday, which must, we should think, be much needed. Taking the salaries of both medical officers together, as representing the amount paid by patients to the medical profession, we find that for consultations at the dispensary, visiting the patients at their own home, vaccinating children, and attending midwifery cases the remuneration is at the rate of less than twopence per visit! The administration of drugs seems to be conducted on the same economical principles. The drug-bill for the whole number of patients amounts only to £267 1s. 11½*d.*, or probably less than 4*d.* per head per year, including children. As to the amount of work done in a given time, taking the March quarter as a specimen and twelve hours as a working day, these well-worked and little-paid gentlemen must have

seen patients *daily, including Sundays*, and counting midwifery and vaccination in, at the rate of 16⅔ each hour. Of course all this work cannot be done on foot, and we find from the Report that each medical man has now a separate conveyance, *provided at his own expense*. We will charitably conclude that the conveyance is a bicycle. No wonder that the Institute sets aside £5 a year each for holiday purposes for its medical advisers. It may be said, what right have outsiders to complain if the two medical officers on whom all this work falls do not complain? We claim the right on the part of the whole medical profession to protest against such a system. The working men of Norwich must be strangely unlike other working men if they work sixteen or seventeen hours a day at such a rate of pay as they are not ashamed to give their medical men. We give the more prominence to these facts as a disposition is shown in high quarters in London to introduce such a system into the metropolis. We warn all whom it may concern.

ALDERSHOT SHAM FIGHT.

BUT for the melancholy loss of life at the Aldershot sham fight there would be considerable amusement in the statements put forth by the military authorities in their endeavours to exculpate themselves from the charge of grievous mismanagement. When the subject was first brought up in the House of Lords H.R.H. the Duke of Cambridge expressed his great surprise at the occurrence of any deaths from sunstroke on the occasion. When he returned to London, and was condoled with on the sufferings he must have undergone, he said "it was warm, but not unpleasantly warm," and his staff said the same thing. It does not seem to have occurred to him that a pleasant journey by rail from London, a quiet ride to the scene of operations, an agreeable luncheon after it with well iced cup and other cool beverages, and a return to town by rail, were conditions vastly different from those in which the troops were placed. Marched out in the blazing heat of the day fully accoutred, kept probably a considerable time under arms awaiting the arrival of the staff, the rapid movements necessary in the course of the fight, the want of any means of procuring a cool drink, and the march home after the operations were concluded, would, we imagine, justify both officers and men in coming to a very different conclusion from that arrived at by His Royal Highness and staff that "it was not unpleasantly warm." When the subject was again brought forward a statement, apparently prepared at the Horse Guards, was made by the Secretary of State for War, in which the blame for the casualties which occurred was thrown upon the troops, as, unfortunately, after the field-day was over the heat had greatly increased, and "the usual anxiety to get back to their lines led to the regiments hurrying the pace, and this, in the heavy dust and increased heat, probably caused a number of men to fall out." But if this explanation be correct how does it happen that the regiments were allowed to "hurry the pace"? Is the rate of marching left to the discretion of the men? Is there a stampede as soon as the staff leaves the ground? Is there so little control over the men that commanding officers are not responsible for the way in which their corps return to barracks? Was there any difference in the regiments in which the fatal cases of sunstroke occurred and in those which escaped? These points are all deserving the attention of the military authorities, for it is very clear that unless satisfactory evidence is forthcoming on the subject, the public will still hold the opinion that red tapeism and want of care on the part of those in high command afford a more probable solution of the unfortunate events than any action on the part of the troops. Mr. Childers stated that there is no rule limiting the hours for parades or exercises in this country, but there is an understanding that, "at times of exceptional heat, all parades are to take place in the early morning, so that the troops may be back in camp before the power of the sun becomes excessive." It would appear, however, that this understanding must have been departed from on the occasion under consideration. If distinct regulations on this subject are not issued it would be advisable, at least, that some one should be held responsible for the consequences which may follow from any unauthorised departure from this very reasonable understanding.

UNIVERSITY OF DUBLIN.

THE Academic Council at a recent meeting adopted the following resolutions:—"That the unlimited number and high scale of prizes proposed by the Senate of the new Royal University for students in arts or in professional schools is without precedent, and, if legalised, would, in the opinion of the Council, seriously interfere with the interests of the University of Trinity College, Dublin." "That the Secretary be instructed to send copies of this resolution to the Chancellor, and representatives in Parliament, of the University." "That instead of a course of lectures on Materia Medica and Pharmacy now required from candidates for the degree of M.B., a course of lectures on Pharmacology and Therapeutics be required." Mr. Valentine Ball has been nominated to the Professorship of Geology, and his nomination and the above resolutions have been approved by the Board of Trinity College.

THE MEDICAL DEFENCE ASSOCIATION.

THE Council of the Medical Defence Association is making arrangements to hold a representative meeting of the medical profession at Exeter Hall to discuss the question of medical reform, and to pass resolutions thereon. The resolutions which may be adopted at the meeting will be duly laid before the Royal Commission on the Medical Acts, and it is hoped will have an important influence on the report of the Commission. It is probable that Dr. Richardson, the President of the Defence Association, and Mr. George Brown, the Honorary Secretary, will be invited to give evidence before the Royal Commission as to the alterations necessary in the Medical Acts to meet the views of the medical profession.

THE RED CROSS BEYOND THE CASPIAN.

IT is announced that the members of the Community of the Exaltation of the Cross attached to the Trans-Caspian expedition have returned to St. Petersburg. This indicates a notable improvement in the sanitary condition of the troops. At Ghéok Tépé, it is stated, the staff of the Red Cross marched immediately in rear of the advanced guard, preceding the column of assault, so that they might recover the wounded and save them from the hands of the Tartars, who were accustomed to mutilate them atrociously. Twelve of the staff were killed and six wounded in this affair. Among the wounded were one sister and two medical men, and one medical man (Dr. Trotsky) was killed.

POST-MORTEM EXAMINATIONS IN PRISONS.

VERY natural dissatisfaction is felt by surgeons to prisons at a resolution passed by the Prison Conference, and strongly urged on the Home Secretary, to the effect "that all post-mortem examinations in prisons be made by an independent medical man." If the surgeon of a prison is fit to be trusted to treat a case during life he must be fit to be trusted to give a proper account of it after death. The solicitude of magistrates and others responsible for the proper care of prisoners in sickness should expend itself in making the best appoint-

ment possible, but thereafter they should confide in the officer selected, either for the treatment of a case or the report of a post-mortem. In cases of difficulty, or where suspicious circumstances have arisen, no doubt the prison surgeon would welcome the co-operation of an independent medical practitioner.

INTELLIGENCE has been received in London of the death of Mr. Michael Francis Ward, M.P. for Galway in the last Parliament. The deceased was born in 1845. He studied medicine at Steevens's Hospital, Dublin, and became a licentiate of the College of Surgeons, Ireland, in 1868. Mr. Ward was for some time curator of the Anatomical Museum of the Catholic University of Ireland; he was also surgeon to the Infirmary for Children in Buckingham-street, Dublin. Mr. Ward went out about a twelvemonth since to Demerara, where he was employed in the Government Medical Service, and where his death occurred.

THE Medical Acts Commission met at 2, Victoria-street, Westminster, on the 8th, 9th, and 11th inst. The evidence of Mr. John Marshall, Dr. D. R. Haldane, Dr. T. S. Ryass, and Dr. Edward Waters was taken. Present—The Earl of Camperdown (Chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Professor Turner, Mr. Bryce, M.P., and Mr. John White (Secretary).

ABOUT fifty medical gentlemen sat down to a dinner given last week in honour of Sir Henry Cooper, M.D., F.R.C.P., of Hull. Mr. Lunn, Senior Surgeon of the Hull General Infirmary, presided. In reply to the sentiments of esteem expressed by the various speakers, Sir Henry replied in feeling terms; and before the company separated, the chairman presented the guest of the evening with a silver-mounted album, containing the photographs of the majority of the medical practitioners of Hull and the vicinity.

WE regret to hear of the death at Peshawur, East Indies, of Surgeon-Major Edward O'Sullivan, Army Medical Department. Mr. O'Sullivan was a graduate of Edinburgh, and obtained his commission as Assistant-Surgeon in 1864. He served for many years in India in the 96th Regiment, was promoted Surgeon-Major in 1876, and had recently returned to Bengal to complete a tour of duty in that command.

WE have received a report of the Yokohama General Hospital. Amongst the records of interest contained in it, is a remark by the medical officers of the institution that there are indications, among both native and foreign residents of Japan, that diphtheria, formerly unknown in the country, is becoming domesticated there.

DR. BERGIN has been elected President, and Dr. G. Bray, Vice-President, of the College of Physicians and Surgeons, Ontario.

MR. J. H. WHARTON has resigned his post as Senior Lecturer on Surgery in the Ledwich School of Medicine, Dublin.

DR. PAUL F. MUNDÉ has been appointed Clinical Lecturer on Gynæcology for one year at the College of Physicians and Surgeons, New York.

AFTER some unseemly haggling, the Bethnal-green Board of Guardians have agreed to the payment of 1*s.* per case for successful revaccinations in the schools at Leytonstone.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Carlisle, Urban.—Dr. Elliot reports for the year 1880 a birth-rate of 37 per 1000 of the population, and a death-rate of 22. The mortality from diarrhœa was much greater than in previous years, and on that subject Dr. Elliot remarks "it is not improbable that the high number so usually and generally registered in the third quarter of a year is chiefly caused by unsuitable food (such as fruit unripe or otherwise in bad condition), together with the want of breast milk, especially in cases where the mother is engaged from home during the day." Typhoid fever caused fifteen deaths, the average annual mortality of the four previous years having been twelve. "The fact of w.c.s being so frequently within the houses of the well-to-do, as distinguished from those of the weekly wage and humbler classes, accounts," remarks Dr. Elliot, "for the observation that typhoid fever has been proportionately more frequently met with amongst the former than amongst the latter." Commenting on scarlet fever, Dr. Elliot takes occasion to point out, in accordance with his own experience and the experience of others, "that not fewer than nine weeks must elapse before a convalescent should be allowed to associate with others who are liable to take scarlet fever." The advantage which Carlisle derives from its fever hospital is commented on, and the importance of a biennial and triennial inspection of towns by their local authorities urged.

Basford, Rural (Notts).—The Basford rural sanitary district has an area of 53,326 acres, and a population, according to the last census, of 48,438. Mr. Whitgrave reports for 1880 a birth-rate of 38·34 per 1000 inhabitants, and a death-rate of 20·13. The report for that year is principally concerned with the great mortality and sickness from scarlet fever which happened during the year, and with the necessity which exists for the provision of hospital accommodation for the sick of that disease in the district. Mr. Whitgrave advocates the provision of two places of reception for the treatment of infectious diseases alone, one to be established at Carlton and the other near Eastwood. The sanitary work of the year, together with the harassing endeavours to check the spread of scarlet fever, rendered necessary no less than 2300 visits and inspections on the part of the medical officer of health. It would appear that in parts of the district the emptying of ashpits and privies is effected by the sanitary authority through the medium of contractors, and this to the satisfaction of the inhabitants and benefit to the health of the localities. Mr. Whitgrave would have this system extended, and holds that the strict adherence to a system of cleanliness is of much greater importance to the health of a locality than yielding to the desires of those persons who plead for the retention of the refuse about houses on the ground of requiring it as manure for their gardens. He thinks that other arrangements might be made in the comparatively few instances where the refuse is really wanted for manure, without interfering with a system of cleansing which is beneficial to the health of the whole community.

Leek, Rural (Staffordshire).—Mr. T. E. Dakeyne reports for this district during 1880 a death-rate of 17·5 per 1000 living. For convenience of description he divides the district into three sub-districts, and he ascribes the prevalence of diseases of the chest and of rheumatism in one of these, Longnor, to wet foundations of houses and leaking roofs, and to the presence there of a large tract of moorland neither drained nor planted, and which is always saturated with water, except for a short period in the driest summers, and is constantly giving off immense volumes of aqueous vapour, loaded with the miasma of decomposing animal and vegetable matter. The vegetation of this tract of moorland, it appears, is always delayed a month later than vegetation in other parts of the district. Scarlet fever, of the principal zymotic diseases, chiefly prevailed in the rural district during the year.

Dublin.—The report of Dr. Cameron on the state of public health in Dublin for June is satisfactory when contrasted with a similar return of last year. The report shows

that the death-rate was 23·7 per 1000 in June, 1881, against 35·35 per 1000 in 1880. Deaths from zymotic diseases, which were 11·45 per 1000 in June of last year, were last month as low as 1·96.

Whitechapel (*London*).—Mr. John Liddle in his report for the quarter ending April 2nd, 1881, gives particular attention to the important question of the compulsory notification of infectious diseases as it affects the metropolis.

West Hartlepool.—Dr. Gourley reports for the month of June a mortality at an annual rate of 13·32 per 1000 living.

VACCINATION IN KENSINGTON.

Mr. Shattock, the vaccination officer for Kensington, has lately presented to his Board of Guardians an interesting report of a recent house-to-house inspection made by him in his district. The inspection extended to 358 streets, containing 5800 inhabited houses, occupied by 11,136 separate families. The number of children found amounted to 28,939, and of these 28,366 were reported as successfully vaccinated, and 573 as unvaccinated. Of these unvaccinated children 304 had been born in other parishes, and by migration into the Kensington district had evaded the vaccination officers of the parishes in which the births occurred; 269, born in Kensington, would in the majority of cases have been dealt with in the usual course except twenty-seven, whose births had not been registered, and others which had been falsely registered. On visiting a house, after having ascertained the number of children in each family, and making the necessary inquiries concerning vaccination, revaccination of adults was strongly recommended by the vaccination officer, and a small handbill delivered giving requisite particulars as to the public provision respecting the operation. In every instance, moreover, of a child between fourteen years and three months of age being discovered unprotected by vaccination, notice was at once served upon the parent or person having the custody of such child, requiring compliance with the law within fourteen days. In many instances attempts were made to evade compliance with this notice by removal, but on these cases being followed up and again found compliance was obtained. The 573 children found unvaccinated are accounted for as follows: 564 were successfully vaccinated; one was certified as unfit from ill-health for vaccination, and the operation consequently postponed; four were removed, and their addresses had not been discovered at the time of the report; and the remaining four were being pursued by legal proceedings or otherwise. The house-to-house inspection did not include the richer portions of the parish. Here 11,500 circulars were distributed to heads of families, and exercised a most important influence in increasing the number of revaccinations performed at the public stations. Gentlemen's servants, it is said, attended by hundreds, and whole households were revaccinated; but mechanics and the labouring classes showed themselves indifferent in the matter, and were with great difficulty induced to submit to the operation.

THE DEPTFORD HOSPITAL.

The report of the Medical Superintendent of the Deptford Hospital (Dr. McCombie), under the management of the Metropolitan Asylums Board, for the year 1880 has been published. During the year 540 cases of small-pox were admitted into the small-pox wards, and of these 365 were discharged recovered, and seventy-two died. Of the admissions 404 were vaccinated, sixty-six were said to be vaccinated, but had no marks of vaccination, and seventy were unvaccinated. The gross mortality was 14·7 per cent., the deaths in the vaccinated being at the rate of 6·6 per cent., in the doubtfully vaccinated at the rate of 33·9 per cent., and in the unvaccinated at the rate of 46·0 per cent. Since Feb. 1880, the Deptford Hospital was used for the reception and treatment of cases of fever as well as of small-pox, six wards being set aside for fever patients. Five hundred and eight cases of fever (scarlet, enteric, typhus, &c.) were admitted to these wards during the year, and although treated in the same precincts as the small-pox patients, and in wards distant only ninety feet from the small-pox wards, while the small-pox convalescents slept in a ward only thirty feet distant from a fever ward, there was no extension of fever to the small-pox wards, and only six cases of small-pox occurred in two groups in the fever wards. It was difficult to explain the origin of these cases. Infection of the fever wards with the contagion of small-pox through the atmosphere was unlikely, and the administrative arrangements of the two sides of the hospital made accidental communication of the contagion by members of the staff equally unlikely. Dr. McCombie thinks that he is justified in saying, from the experience of 1880 at Deptford, that, with such precautions as were adopted there, "small-pox and fever may be treated on the same site, and, as regards the principal officers, with the same staff."

THE LOWER THAMES VALLEY MAIN SEWERAGE BOARD.

The course of this unfortunate Board is still beset with troubles. At its meeting on the 7th inst. it was subjected to a series of duns for outstanding accounts relating to the late official inquiry into the sewerage schemes it had under consideration. The printers of the reports of the inquiry theatened legal proceedings if their account was not paid, and Messrs. Baldwin Latham, Grantham, and Alderman Ellis pursued a similar course with regard to sums owing by the Board to them. The sum remaining to be paid on these accounts by the Board amounted to £5000, and the treasurer had in hand only £1224 1*s*. 5*d*. These moneys could not be obtained without the assistance of the Local Government Board, and that Board had shown itself curiously indifferent to the difficult position in which the Lower Thames Board was placed. It was decided to write again to the Local Government Board, informing them of these threatened proceedings, and so endeavour to quicken the action of that Board in coming to the help of the Lower Thames Board. At the same meeting a report was read from Mr. Hawksley, submitting a scheme for the drainage of the Lower Thames Valley. Mr. Hawksley objected to any scheme which would include provision for dealing with the sewage in the valley itself, and proposes that it shall be carried to an outlet below the metropolitan area in the estuary of the Thames. For this purpose he suggests the construction of a system of iron-pipe sewers, beginning with sewers of eighteen inches in diameter and increasing as the outlet is approached to a three-foot diameter. Transmitting engines would be established at various points for maintaining the flow of the sewage when gravitation could not be taken advantage of. Mr. Hawksley's report will be considered by a special meeting of the Board.

At the meeting of the Metropolitan Asylums Board on the 9th inst., Surgeon-General Bostock, C.B., directed attention to a report from the Stockwell Small-pox Hospital respecting the state of vaccination of patients admitted there, which indicated considerable negligence in the administration of the vaccination law by local vaccination authorities in the metropolis. In the observations made by members of the Board on this report, some strong observations were made upon the mischief done by the so-called anti-vaccinationists and anti-vaccination leagues, or, as Mr. J. S. Talbot, M.P., named them, "murder leagues," and it was observed that the movement against vaccination was not confined to the ignorant, seeing that Sir Thomas Chambers, M.P. and Recorder of the City of London, was associated with the propaganda.

Dr. W. S. Thomson, on resigning the post of Medical Officer of Health to the Peterborough Urban and Rural Sanitary Authorities, was presented with the following highly satisfactory testimonials:—"Resolved, that the best thanks of the Council be accorded to Dr. Thomson for the ability and energy displayed by him in the discharge of his duty as medical officer of health for the city and borough of Peterborough from the time of its incorporation." "Resolved, that the thanks of the Rural Sanitary Authority of the Peterborough Union be given to Dr. W. Sinclair Thomson for the efficient manner in which he had discharged his duties as medical officer of health for the past five years."

The county magistrates sitting at Henley-on-Thames, on the motion of the Thames Conservators, have fined a brewer of Goring for discharging refuse from his brewery so that it made its way into the river. Mr. Wigner, the analyst of the Conservators, found in a sample of water submitted to him, and presumed to be polluted from the brewery, germs of the yeast plant in full growth.

A public meeting was held at London Fields on the 11th inst., for the purpose of protesting against the ambulance station about to be established there, in connexion with the new ship-hospital, the *Atlas*, by the Metropolitan Asylums Board. The speeches delivered to the meeting by the Chairman and others were characterised by more than usual lack of knowledge of the subject.

The ceremony of laying the foundation stone of the Vyrnwy Waterworks for the additional water-supply of Liverpool was announced to take place on the 14th inst. Lake Vyrnwy, which is to be constructed as part of the scheme of supply, and is to be formed by erecting an embankment across the upper Vyrnwy valley, will have an area of 1115 acres and contain an available supply of 11,900,000,000 gallons.

An important addition has been made to the accommodation for scarlet fever patients in the Bradford Fever Hospital by the erection of a two-storeyed self-contained building, calculated for the accommodation of the nurses attached to the patients suffering from this form of malady, as well as to increase the number of beds which can be devoted to sufferers from it.

The Chairman of the Bethnal Green Board of Guardians recently declared that the Regent's Canal in their district was "nothing less than a fever-pond," whereupon Dr. Latham, a member of the Board, observed that "many houses have their waterclosets drained into it." The sanitary authority should see to this.

We learn that scarlet fever is seriously prevalent at Burrow Hill, near Chobham, and that the efforts of the medical officer of health of the district to limit the spread of the disease are greatly impeded, no provision having been made by the sanitary authority of hospital accommodation for the isolation of persons suffering from the malady.

The Sanitary Committee of the Corporation of Newcastle-on-Tyne have issued in the form of a tract an excellent "Notice on the Prevention of Infectious Diseases, and Recommendations in favour of Vaccination and Revaccination," prepared by their medical officer of health, Mr. Henry S. Armstrong.

The Preston Board of Guardians have, in obedience to the requirements of the Central Board, determined on the immediate erection of an infectious diseases hospital at a cost of £10,330.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Owing in some measure to the greater fatality of summer diarrhœa the rate of English urban mortality showed a further increase last week. In twenty of the largest English towns, estimated by the Registrar-General to contain in the middle of this year a population somewhat exceeding seven and a half millions, 4918 births and 3022 deaths were registered last week. The births were 268, and the deaths 235 below the average weekly numbers during 1880. The annual rate of mortality in these twenty towns, which had been equal to 18·5 and 19·5 per 1000 in the two preceding weeks, further rose to 20·7 last week. The lowest rates in the twenty towns were 11·4 in Portsmouth, 12·5 in Bradford, 15·4 in Norwich, and 15·6 in Bristol. The rates in the other towns ranged upwards to 21·9 both in Manchester and Hull, 22·2 in Newcastle-upon-Tyne, 23·4 in Wolverhampton, and 24·3 in Liverpool. During the thirteen weeks which ended on the 2nd inst. the death-rates in the twenty towns averaged 20·5 per 1000, against 22·2, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 441 and 498 in the two previous weeks, further rose to 579 last week; these included 180 from diarrhœa, 102 from measles, 91 from whooping-cough, 87 from scarlet fever, 80 from small-pox, 27 from fever (principally enteric), and 12 from diphtheria. The annual death-rate from these zymotic diseases averaged 4·0 per 1000 in the twenty towns; it ranged from 0·0 and 0·4 in Plymouth and Newcastle-upon-Tyne, to 5·1 and 5·2 in London and Liverpool. The fatality of measles was proportionally greatest in Liverpool; of scarlet fever in Norwich, Leicester, Nottingham, Sunderland, and Hull; and of whooping-cough in Birmingham, Leicester, and Wolverhampton. The highest death-rate from enteric fever was recorded in Brighton. The 180 fatal cases of diarrhœa showed a further increase of 50 upon recent weekly numbers; the death-rate from this disease was more than three times as high in London as in the nineteen provincial towns. Of the 12 deaths from diphtheria in the twenty towns 8 occurred in London and 2 in Portsmouth. Small-pox caused 84 more deaths in London and its outer ring of suburban districts, 3 in Liverpool, 2 in Brighton, and 1 each in Hull and Newcastle-upon-Tyne; no fatal case of this disease was recorded in any of the fifteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the four preceding weeks from 1644 to 1408, further fell to 1192 on Saturday last, including 314 inmates of the Convalescent Camp Hospital at Darenth. The new cases of small-pox admitted to these hospitals, which had been 321 and 254 in the two previous weeks, further declined to 141 last week. The St. Pancras Sanatorium at Finchley contained 32 small-pox patients on Saturday last, and 11 new cases were admitted during the week. The patients in the Highgate Small-pox Hospital were 72 at the end of last week, and 11 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 225, 210, and 181 in the three preceding weeks, were 194 last week, and exceeded the corrected weekly average by 15; they included 116 from bronchitis and 59 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, did not exceed 2·7 per 1000 in London last week; the rate from the same diseases was equal to 5·0 in Liverpool.

The causes of 60, or 2·0 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0·8 per cent., whereas in the nineteen provincial towns it was four times as high, and averaged 3·2 per cent. No uncertified deaths were registered last week in Portsmouth, Plymouth, Wolverhampton, Birmingham, or Nottingham; the proportions of such deaths were largest in Brighton, Salford, Bradford, Sheffield, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in eight of the largest Scotch towns, having a population now estimated at rather less than a million and a quarter persons, which had been equal to 19·6 and 20·9 in the two preceding weeks, was 20·4 last week; this rate was 0·3 below the average rate in the twenty large English towns last week. The rates in the eight Scotch towns ranged from 14·3 and 15·7 in Greenock and Perth, to 22·6 and 31·7 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 63 and 91 in the two previous weeks, declined again to 76 last week; they included 27 from diarrhœa, 13 from measles, 11 from whooping-cough, 9 from diphtheria, 8 from scarlet fever, 8 from "fever" (typhus, enteric, or simple), and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·3 per 1000 in the eight towns, and was 0·7 below the average rate from the same diseases in the twenty English towns. This zymotic rate ranged in the eight Scotch towns from 0·9 and 1·0 in Paisley and Aberdeen, to 4·2 and 4·5 in Glasgow and Edinburgh. The fatal cases of diarrhœa in the eight towns, which had been 18 and 27 in the two previous weeks, rose again to 27 last week; they were equal to an annual rate of 1·17 per 1000, against 1·33 in the twenty English towns. The largest proportional diarrhœa fatality occurred in Glasgow and Leith. The 13 deaths from measles, of which 11 were returned in Glasgow, showed a decline of 2 from the number in the previous week. The deaths from whooping-cough were also less numerous; 7 of the 11 occurred in Edinburgh, and 3 in Glasgow. The 9 deaths referred to diphtheria, however, showed an increase, including 5 in Glasgow and 2 in Edinburgh. Five of the 8 deaths from scarlet fever were returned in Edinburgh, and 3 in Glasgow. The deaths referred to typhus, enteric, and simple fever, which had been 5 and 18 in the two preceding weeks, declined again to 8 last week, of which 4 occurred in Glasgow, 2 in Dundee, and 1 each in Edinburgh and Leith. The annual death-rate from "fever" averaged 0·35 in the eight towns, against 0·19 in the twenty large English towns. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) further declined last week to 87, from 114 and 98 in the two preceding weeks, and were equal to an annual rate of 3·8 per 1000, against 2·5 from the same diseases in London. The greatest fatality of lung diseases occurred last week in Glasgow and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin was somewhat higher last week. The annual death-rate in the city, calculated upon the population enumerated in April last, which had

fallen to 18·7 in the previous week, rose again to 20·6 last week. During the thirteen weeks ending the 2nd inst. the death-rate in the city, however, averaged 25·7 per 1000, against 20·2 in London and 21·1 in Edinburgh. The 138 deaths in Dublin last week showed an increase of 13 upon the exceptionally low number in the previous week; they included 7, or 5 per cent., which were referred to the principal zymotic diseases, against 19 and 5 in the two preceding weeks. These 7 deaths from zymotic diseases included 3 from fever (typhus, enteric, or simple), 2 from scarlet fever, and 2 from diarrhœa, whereas no deaths were referred either to small-pox, measles, diphtheria, or whooping-cough. The annual death-rate from these principal zymotic diseases did not exceed 1·0 per 1000 in Dublin, while the rate from the same diseases was equal to 5·1 in London and 4.5 in Edinburgh. The 3 deaths referred to fever showed an increase of 1 upon the number in the previous week; the annual death-rate from this cause was more than twice as high as the average fever rate in the twenty large English towns. The 2 fatal cases of scarlet fever showed an increase upon recent weekly numbers, while the two of diarrhœa corresponded with the number in the previous week. The deaths of elderly persons were fewer than in any previous week of this year; as were also the deaths recorded in public institutions.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE SANITARY CONDITION OF THE HOTELS OF ROME.

The *Italian Times* publishes a report on the general results of the inspection of the hotels of Rome by the Sanitary Commission it recently appointed. Those results fully justify the action taken by our contemporary in this matter, and cannot but exercise the most important influence upon strangers proposing to visit Rome, by restoring the waning confidence in the sanitary condition of its hotels. The inspection disclosed not a few defects in the construction and arrangements of the drainage of the hotels, and in a few instances in the arrangements of the water-supply, but with hardly an exception the defects were of a nature to admit of ready removal, and the proprietors and landlords displayed the most excellent disposition to act upon the advice and recommendations of the Commissioners to put their houses in order. Indeed, they have invited the Commissioners to visit their houses again in October and satisfy themselves as to the manner in which the improvements suggested by them have been carried out. The following statements of the Commissioners with respect to the water-supply of hotels in Rome will be read with much interest and satisfaction. They say, "The drinking-water in every hotel was found good. In most the overflow pipes from the cisterns opened into basins, receptacles, or fountains in the kitchens, laundries, and gardens. The closets had often quite a distinct supply from that used for drinking. In the hotels with Trevi water, it was sometimes pumped into cisterns by water-wheels, but usually in these hotels a fountain was formed with a running stream from which the supply for drinking was taken. In only one hotel was the Trevi pipe led into an underground pit, and thence pumped into the cisterns. Attention was called to the danger of such a pit. No pozzo or well water was used in any of the hotels . . . . The water-supply which is so good in Rome cannot be a source of danger to any of the hotels inspected." We congratulate our contemporary on the public spirit displayed in the formation of this Sanitary Commission, and on the great success which promises to attend its labours. We congratulate also the hotel managers of Rome on the excellent spirit they have displayed towards the Commission. The confidence given by the work of the Commission and the goodwill shown towards it and the desire to benefit by it, on the part of hotel-keepers, cannot but exercise a most important effect upon visitors to the Eternal City.

HOSPITAL ACCOMMODATION FOR CONTAGIOUS MALADIES IN ST. PETERSBURG.

The thousands of workmen who migrate to St. Petersburg in search of work at the end of winter from all parts of Russia augments the number of the sick so that the hospital accommodation of the city becomes wholly insufficient for their treatment. The municipality endeavoured to meet this difficulty by organising temporary hospitals in private houses, but these proved insufficient, and their supervision was attended with much difficulty. About a year ago, it appears, it was determined to erect hut hospitals for the reception of contagious maladies. A Commission was named to carry this decision into effect, and a sum of 200,000 roubles set apart for the execution of the necessary works. The Alexander-place was selected as the site for the huts. There twenty small huts, two large ones, and five pavilions for the administration, are being erected, all to be surrounded by a beautiful garden. The erection of these huts began in October, 1880, and it was anticipated that they would be ready for use before June in the present year. The latest news reported that the huts were roofed in, and so arranged as to form a new street of wooden houses, built in Russian style. Each of the smaller huts has a length of 65 ft. and a breadth of from 28 ft. to 35 ft., and is calculated for twenty-two beds; the larger huts will contain thirty-two beds. The site has been drained, and it will be fenced by a wooden railing.

THE LONDON WATER-SUPPLY.

The water examiner (Col. Frank Bolton, R.E.) reports that during the month of May the water in the Thames at Hampton, Molesey, and Sunbury (where the intakes of the London Water Companies are which derive their supplies from the river) was good in quality, except on the two last days of the month, when it was slightly turbid; and Prof. Frankland describes the water as uniformly well filtered before delivery, and as "unusually free from organic matter." Mr. W. Crookes, Dr. Odling, and Dr. Meymott Tidy, in their report on the London Water-supply for May 20th and June 30th, say: "Judging by our daily examinations, the water supplied to London is, in our opinion, whether considered as to its efficient filtration, or as to its proper aeration, or as to its purity and wholesomeness, unimpeachable. The result of our six months' work and the examination during this period of 1127 samples, enable us to state that, as an excellent drinking supply, it leaves nothing to be desired."

EPIDEMIC IN DENMARK.

We take the following paragraph from the *Manchester Guardian* of July 13th:—"The visitors staying at the fashionable bathing place of Stadsborg, ten miles from Copenhagen, have been thrown into a perfect panic by the sudden outbreak of a violent epidemic of diphtheria, numerous persons having already fallen victims to the disease, including the editor of the *Dagbladett*, the leading Copenhagen newspaper, and Madame Jerichau Baumann, the celebrated painter. Many Swedish and German families are leaving the neighbourhood owing to fears of the spread of the contagion. A perfect gloom in consequence prevails among the population of Copenhagen.

We are informed that no outbreak of small-pox has taken place in H.M. Prison, Holloway. There have been three cases altogether; two went in with symptoms of the disease, and one happened in the prison three months ago.

THE SERVICES.

TROOPS ON THE GOLD COAST.

Those who have studied the health history of our army in times past could not have been surprised at the statements which were made respecting the great amount of sickness and the high rate of mortality during the late military operations on the Gold Coast. Prior to 1823 we had a body of white troops employed on the West Coast of Africa which was kept up as a penal corps. The frightful mortality which occurred in it led to its being disbanded about that date, and since then the duties have devolved upon the West India Regiments. Even upon them the climate of the West Coast exerts a most injurious influence under the ordinary conditions of service, the average rate of mortality in Western Africa generally amounting to 3 per cent. annually, while the death-rate on the Gold Coast and at Lagos nearly approaches 5 per cent. When it is necessary to increase the force temporarily, the men are of necessity quartered in huts in Fantee towns, or put under canvas; it follows almost as a matter of course, that this is attended with an increase in the sickness and mortality. This is what happened on the late threatened invasion of

our colony by the King of Ashantee. In the House of Lords on Tuesday last, the Earl of Morley explained the steps which had been taken on the intimation of serious difficulties having arisen between our authorities and the King. The arrangements seem to have been judicious, so far as circumstances permitted, and on one point only further information appears desirable. Abundant supplies were forwarded of preserved meats, biscuits, lime juice, and other stores, and these arrived two days before the reinforcements for the use of which they were intended. But the Duke of Richmond and Gordon has suggested that these stores were not issued after their arrival. The experience of the Crimean War might justify the belief that such mismanagement was by no means impossible. It would be well, therefore, that an inquiry should be made, and returns obtained of the amounts issued and the dates of issue, with a statement of the quantities remaining, and how these have been disposed of. The Earl of Carnarvon pointed to the possibility of corruption, and it is the duty of the Government to see that where ample provision is thus made for the requirements of our troops it is applied honestly to the purpose intended, and not converted into a source of fraudulent profit to interested parties. The most satisfactory part of the statement made in the House, however, was that "the garrison of the Gold Coast was now almost reduced to its normal strength." We trust that it may be long before it is again necessary to increase it, as it would be obviously out of the question to make such provision as would ensure abundant and healthy accommodation for a force which may possibly never be required, or required for short periods only, and at very uncertain intervals.

The steamship *Duart Castle*, belonging to Messrs. Donald Currie & Co., arrived at Portsmouth on the 6th inst., with a party of 109 non-commissioned officers and men invalided from the Transvaal. Surgeon-Majors T. Babington and Parkinson, Army Medical Department, were in charge of the party. Dr. Babington was senior Medical Officer with Sir G. Pomeroy Colley's force at the actions at Laing's Nek, the Ingogo, and Majuba Hill.

Brigade Surgeon A. G. Elkington, Grenadier Guards, has been ordered to Wimbledon to superintend the Field Medical arrangements for the annual Volunteer gathering.

The next examination of candidates for the Army Medical Department is fixed to commence at the University of London on the 15th of August next.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Frederick M'Clement, to the *Duke of Wellington*, additional for service at Haslar Hospital. Surgeon Samuel Keays, to the *Ganges*, vice Henry B. Guppy.

THE HOSPITAL SHIPS FOR SMALL-POX.

WE announced a few weeks ago that the Admiralty had placed two ships—the *Atlas* and later the *Endymion*—at the disposal of the Metropolitan Asylums District Board, for the reception of cases of small-pox. No time has been lost in effecting the conversion of these vessels to their new purpose, and on Saturday last, at the invitation of Sir E. H. Currie, who, as chairman of the Darenth Asylum, had charge of the work, a considerable company of those interested in the subject, including the President of the Local Government Board, Dr. Brewer, the Chairman of the Metropolitan Asylums District, and a large number of members of the Board, proceeded to inspect the ships, one of which, the *Atlas*, was so far completed that it was proposed to open it for the reception of patients on Monday. The following facts are culled mainly from a full statement of the alterations undertaken, which was circulated among the visitors.

The *Atlas*, which is to be used as the hospital ship, is a 100-gun line-of-battle ship, and the *Endymion*, a 40-gun frigate. The moorings at Deptford not being ready, the *Atlas* was taken over at Greenhithe on the 4th June last. The *Endymion* was brought to Deptford on the 30th June, and the *Atlas* on the 2nd July, and both ships being finally moored by the naval party and the Thames Conservancy, the *Endymion* was taken over on the 5th July.

In the *Atlas* there are now three hospital wards between decks, the lowest, or orlop deck, having been made available by cutting thirty-four new ports through the side of the vessel. A dummy has been moored to the ship level with this deck, and an entrance port formed. Adjoining the entrance is a receiving-room and a lift communicating with the upper wards, and the weather-deck and speaking-tubes from deck to deck. To each ward is attached a nurse-room, scullery, and bath-room in the after-part of the vessel, and at this end also the screw aperture has been utilised for the formation of a staircase to lead from the entrance port to the various decks without passing through the wards. At the fore-end of each deck waterclosets and slop-sinks have been placed in such a position as to secure the greatest amount of ventilation possible under the circumstances. The hatchways have been uncovered and enclosed with louvre boarding, and are to be left open to the weather-deck, and covered with skylights for ventilation. Upon the deck a house has been built for the reception of doubtful cases. In this there are two wards, with the necessary nurses' room, bath-room, waterclosets, &c. Another house has been built on the same deck, consisting of six small isolation wards. A mortuary has also been built in the fore-part of this deck.

The *Endymion* is to be used as an administration ship, and has been fitted with cabins, baths, and waterclosets for the staff (about seventy in number), and with store-rooms, kitchen, &c. An entrance port has been formed in the lower deck, and an enclosed staircase communicating with each deck. A small lift is being fitted in a convenient position to connect the kitchen stores and coal-cellar with the weather-deck. A house on deck is being built for laundry purposes and fitted with a ten horse-power steam boiler, a four horse-power steam-engine, Clement's patent centrifugal washing-machine, hydro-extractor, six-horse drying closet, tanks, tubs, &c. A Lyon's patent steam disinfector is being fitted in the boiler-house.

The water-supply for the two vessels is taken from shore. A meter is fixed in at the nearest causeway, and an iron pipe laid under the foreshore; this is connected with a protected hose pipe which is taken up one of the fore-chains of the *Endymion* and attached to the pipe which supplies the various tanks. In case of failure of the connecting-pipe, a water-boat has been prepared to be filled from a hydrant fitted near the meter. From the boat a fire-pump connected with the tank-pipe will deliver the water on board. The total tankage on the two vessels is 4800 gallons. Hot water will be supplied on the *Atlas* by means of a circulating boiler and tank, from which pipes will be laid to the various bath-rooms and sculleries. On the *Endymion* the water will be heated by a steam coil. Small Dounton's pumps have been fitted on each vessel to pump the bilges. The lower holds have been battened down. Downcast ventilators have been fitted fore and aft, and openings formed through the magazine and other bulkheads to secure an up current through the funnel casing. A Dounton's portable fire-pump has been supplied to each ship with suction and delivery hose. The ships are connected by a bridge.

At the time of inspection, the three wards on board the *Atlas* were completely fitted up; but the deck was still in the hands of the workmen engaged in erecting the buildings for doubtful cases, for isolation, and for the mortuary; whilst on board the *Endymion* the work was by no means advanced. There is accommodation on board the *Atlas* for about 180 small-pox patients—60 in each ward. The height between decks is only about eight feet at the most, but it is hoped that by means of the ports and the large open hatchway sufficient ventilation will be secured. The beds appeared to be rather too closely placed, especially considering the nature of the disease for which they are intended, and it may be doubted whether the extra floor space and the provision for ventilation will compensate for this arrangement. There is also a provision for bringing the baths to the bedside; each bath-room being furnished with a carriage for this purpose.

The wharf premises for embarkation of patients, known as "Potter's Ferry," are situate upon the north side of the river Thames, almost immediately opposite Greenwich pier, and consist of an open yard, accessible through a wide pair of carriage gates. There is a cottage on the grounds, and the managers have rights over the river beach, and the use of a dummy barge with mooring chains, a tram running on rails, and all necessary appurtenances for the shipment of patients from the ambulances to a hospital barge specially prepared for reception of patients. This barge, towed by a small steam-launch, conveys the patient on board the ship. The arrangements made are such that, at any state of the tide, there is no possibility of patients being detained at the

wharf. The managers have, with the consent of the Local Government Board, agreed to rent the premises at £200 per annum for three years, with the option of renewal at the end of that period. Arrangements have also been made for the burial of patients, to take place from Homerton Hospital.

An *ambulance station* has been established at George-street, London Fields, a position central to the several parishes allocated to the ship. On the premises, which are rented at £250 per annum, and consist of nearly one acre of land, will be placed the horses and ambulances, and staff of drivers, &c., necessary for the transfer of patients from their homes to the ship, *viâ* Potter's Ferry; an officer, responsible for the management of the establishment, with a staff which will at present comprise four nurses (one of whom is the superintending nurse. Arrangements have been made for boarding and lodging the whole of the *employés* on the premises, thus preventing contact with the public. The capacities of the establishment can be increased or decreased according to the exigencies of the epidemic. The ambulance station will shortly be in telephonic communication with the offices at Norfolk-street, and the *modus operandi* will be that, upon the discovery of a case of small-pox in any one of the parishes or unions allocated to the ship, a telegram to this effect is despatched by the parochial officer to the office at Norfolk-street, where immediate directions for the prompt removal of the patient will be conveyed by the telephone to the ambulance station. The ambulance, specially constructed by Messrs. Holmes, of Derby, will, accompanied by one of the nurses, proceed to the address of the patient, who will be conveyed to the wharf, where, as before mentioned, the steam-launch will be in waiting, and the patient, still attended by the nurse, will be conveyed on board the ship.

ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council of the Royal College of Surgeons held on Thursday last Mr. Erasmus Wilson was elected President of the College, and Mr. Spencer Wells and Mr. John Marshall were elected Vice-Presidents. Mr. Hutchinson was re-elected Professor of Surgery and Pathology, Mr. Flower and Mr. Parker were re-elected Professors of Comparative Anatomy and Physiology, and Mr. Gerald Yeo was re-elected Lecturer on Anatomy and Physiology. Dr. Bristowe, Dr. Dickinson, Dr. S. Gee, and Dr. Frederick Roberts were elected Examiners in Medicine. The extended examination in Medicine will not, however, come into force until January, 1882, and Dr. Bristowe and Dr. Dickinson will carry on the Examination in Medicine during the present year. After some discussion as to the expediency of deferring the appointment of the examiners in Midwifery for the Membership and Fellowship, it was resolved to proceed with the election, and Dr. Herman and Dr. John Williams were elected Examiners, and will commence their duties next January. Mr. Eve was appointed Pathological Curator of the Museum. A further communication from the Royal Commissioners was referred to a committee, consisting of the President and Vice-presidents, and seven other members of the Council—namely, Sir James Paget, Dr. Humphry, Mr. Erichsen, Mr. Savory, Mr. Holmes, Mr. Lund, and Mr. Lister.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Thursday, the 7th inst., the Earl of Morley, in reply to the Earl of Camperdown, narrated the facts in connexion with the recent deaths from sunstroke at Aldershot, a statement which corresponded with that given in the Lower House by Mr. Childers.

In the House of Commons on Thursday, the 7th inst., the preliminary report of the Scotch census was presented. On the motion of Mr. Birkbeck, a return was ordered of Mr. Walpole's report on the destruction of fish at Billingsgate. Mr. Healy gave notice of a question for Thursday as to the refusal of the governor of Naas Gaol to allow Mr. Moran, a prisoner under the Coercion Act, to see a doctor other than the prison medical officer.

On Friday, a petition was presented from the Irish Medical Association for alteration of the Lunacy Law Assimilation (Ireland) Bill. The Bill had, however, been previously withdrawn, and the subject stands over until next session.

On Monday, the report of the Joint Committee appointed to administer the Canadian grant for the relief of distress in Ireland was presented.—A return was ordered of the length of underground workings and passages in some of the principal mines in England and Wales, showing what workings are passable by horses or tramways, and what are passable only by men; and also showing the greatest vertical depth below the surface, and the largest air-current.—The Metropolitan Open Spaces Act (1877) Amendment Bill was further amended, and ordered for third reading.—Mr. Macdonald gave notice of a question as to mistaken leniency of magistrates in enforcing the Mines Regulation Act, which tends to keep up the death-rate from accidents.—Mr. Forster, in reply to Mr. O'Shaughnessy, stated that the report of the Inspectors of Lunatic Asylums for 1880 would be at once distributed amongst the members.

The Aldershot Casualties.

Mr. Childers informed Sir A. Gordon that the three men who died of sunstroke after the Aldershot Review on the 4th inst., belonged to the 1st Battalion of the Royal West Surrey Regiment, and one to the Middlesex Militia. At the inquest two were found to have been predisposed to sunstroke by habit of body. A War Office circular, which was issued the day after the Review, gave a sufficient warning to commanding officers of the expediency of restricting the hours of drill to the early morning during exceptionally hot weather. He saw no reason for giving a detailed return showing by regiments the number of men who fell out of the ranks on the 4th inst., but Sir A. Gordon was welcome to the information if he would call at the War Office.

Army Veterinary Surgeons.

Major O'Beirne asked the Secretary for War whether certain actuarial calculations, bearing upon the reconsideration of the Army Veterinary Warrant of 1878, had been completed, and, if so, whether he had come to any conclusion as to the reasonableness of the complaints of army veterinary surgeons respecting the operation of the Warrant of 1878, and whether it was contemplated to modify the terms of the present Warrant so as to remove the disabilities complained of.—Mr. Childers said he found that the actuaries' calculations to which the hon. member referred were completed in September, 1879, but that after considering them the late Government determined not to alter the Warrant of 1878.

The Veterinary Surgeons Bill was brought down from the House of Lords, and read a first time.

The Royal Univeristy for Ireland.

On Thursday, Mr. Dawson asked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been drawn to the fact that in the scheme for the Royal University for Ireland no provision was made for the granting of a special diploma in the branch of the medical profession dealing with diseases of the eye, and whether such an omission will be filled up.—Mr. Forster, in reply, stated that he understood provision was made in the scheme for the Royal University for Ireland for lectures dealing with diseases of the ear and the eye, and other special departments of surgery. Omission of a special diploma was a matter to be decided by the Senate of the University.—Mr. Dawson asked, was not the right hon. gentleman aware that eminent aurists and oculists had expressed their surprise that the subject was omitted.—Mr. Forster did not reply.

Mr. O'Shaughnessy will on Friday ask what are the steps necessary to place the Royal University of Ireland—in the words of the eleventh section of "The University Education (Ireland) Act, 1879—"in a position to confer degrees."

The Army Hospital Corps.

Replying to Mr. A. Moore, Mr. Childers stated that under the Warrant of the 14th of August, 1877, the discipline of the Army Hospital Corps was transferred from the Captains and Lieutenants of Orderlies to the Medical Officers, leaving to the former the purely Quartermaster duties of equipment and supply only. Under the New Warrant of this year the emoluments and prospects of these officers have been considerably improved, by putting them on the same footing as Line Quartermasters, and the opportunity has been taken to discontinue their inappropriate titles, and give them that which is the proper description of their appointments. They will also receive honorary military rank, which is really better, so far as their social and military status is concerned, than the relative rank they formerly had. Their present titles will not unfavourably affect any authority they may have in the hospitals.

PUERPERAL MORTALITY IN WORKHOUSES.

To the Editor of THE LANCET.

SIR,—I beg to forward the enclosed return of the Lying-in Ward of the Lambeth Infirmary for publication, as the question of hospital administration is now being much discussed. It will be noticed in that return that a very large proportion of the mothers are unmarried, very many of them pregnant with their first child, so that, as far as moral influences can depress the nervous system and lower the gestation, these women appear to be specially selected for the invasion of septic influences; furthermore, many of them are in a starving condition on being admitted, and not a few are the subjects of syphilis. Notwithstanding all these adverse conditions, we find that Poor-law institutions—for the same results will, I believe, be found in other infirmaries besides this one—compare most favourably with the general lying-in hospitals. Several of these hospitals, started with the best and purest motives, have acquired a most unenviable name for the prevalence of pyæmia, puerperal fever, and allied diseases of childbirth.

Return showing the Number of Births in the Lying-in Ward of the Lambeth Infirmary, and the Number of Women Confined therein who Died in Childbirth, or from causes connected therewith, during the last Ten Years.

Years.	No. of Births.			Mothers Married.	Mothers Unmarried.	Twins or Multiple Births.	Deaths.						Remarks.
	Male.	Female.	Total.				Puerperal Fever.	Hæmorrhage.	Convulsions.	Puerperal Peritonitis.	All other Causes.	Total.	
1871	97	100	197	45	152	1	1	...	...	...	...	1	.....
1872	83	84	167	38	129	7	...	...	...	...	...	...	.....
1873	88	85	173	46	127	3	...	...	1	...	...	1	.....
1874	90	87	177	35	142	...	...	...	...	1	1*a*	2	*a* Protracted labour.
1875	91	64	155	38	117	4	2	...	...	1	...	3	.....
1876	81	58	139	29	110	...	...	...	...	...	2*b*	2	*b* Puerperal mania.
1877	106	89	195	47	148	3	...	...	...	...	1*c*	1	*c* Pneumonia after labour.
1878	96	103	199	45	154	1	...	...	...	...	1*d*	1	*d* Premature labour; pneumonia.
1879	106	108	214	54	160	2	...	...	...	1	...	1	.....
1880	92	99	191	32	159	4	...	1	...	...	1*e*	2	*e* Puerperal mania.
Totals ...	930	877	1807	409	1398	25	3	1	1	3	6	14	

For my part, I do not think the reason far to seek for the enormous difference between Poor-law lying-in hospitals and the voluntary lying-in hospitals. I feel satisfied that the divided responsibility caused by the existence of a medical staff of half a dozen physicians and surgeons cannot but militate much against sound administration, and the relegation of such details of hospital management as cleanliness, ventilation of the wards, &c., cannot but be fraught with disaster to the patients. I know from personal inspection of some general hospitals, that were a workhouse infirmary found by one of the Local Government Board inspectors in as dirty and slovenly a condition as some hospitals I have seen, the probabilities are that the medical officer, steward, and matron would be called upon to resign at once; and this, doubtless, keeps these officials up to the mark.

Should Mr. Holmes be successful in obtaining the Royal Commission he seeks, to inquire into the management of the general hospitals, the result will probably be in the direction of placing these institutions under that much-abused body, the Local Government Board, which, whatever its shortcomings may be in other respects, manages its own lying-in wards so well as not to cause them to be what some lying-in hospitals have been, charnel houses for parturient women.

I remain, Sir, your obedient servant,

ROBERT H. LLOYD, M.D.
Medical Superintendent.

July, 1881.

Obituary.

DR. HENRY DAY.

THE profession has lost in Dr. Day of Stafford one whose name has long been familiar to it, and we record his death with sincere sorrow. He was a man of great learning, a physician whose whole heart was in his work, and one who to the last kept himself in the advanced march of medical science and practice. For a time Dr. (then Mr.) Day practised in London, in Arlington-street; but over twenty-five years ago he settled as a physician in Stafford, and became identified with that place in a special manner. He was one of the physicians to the Stafford County Infirmary, and was visiting physician to the Coton Hill Lunatic Asylum. In addition to the duties connected with these public appointments he carried on a good consulting practice, was much esteemed as a country gentleman, and well known amongst the members of his own fraternity not only as an acute, observant, and careful practitioner of the healing art, but as a hospitable and ever kind and considerate friend. In his work as an original observer, Dr. Day rendered many useful services. He contributed to medical literature a volume of medical and clinical histories, dedicated to Sir Thomas Watson, and greatly admired, as we have heard, by that admirable classical scholar; he conducted a research on ozone, including in the undertaking several new and original experiments, and he delivered an address on the Historical Steps of Modern Medicine before the St. Andrews Graduates' Association, on taking the chair as President of that body. He made new observations of an experimental kind bearing on the cause of cerebro-spinal meningitis, and he contributed valuable essays on the nervous origin of acute rheumatic fever and on brain lesions. In all these labours he showed the possession of sound judgment, learned industry, and a graphic and classical style of expression. He was also a good microscopist, and was quite an expert in the art of injecting and mounting both physiological and pathological microscopical specimens. He took, in fact, unusual pains in this practical department of minute science, and always spoke of the pleasure with which he followed up the pursuits.

Dr. Day, through a comparatively long life, enjoyed excellent health, and, as a rule, was equally ready, on all occasions, for a humorous chat—in which punning formed a lively ingredient—a social reunion, an argument on diagnosis, or a chapter on physic. He gave no indications of bad health until the close of last year, and in a most touching letter of farewell, written a few days before his death, to his old friend Dr. Richardson—in which letter he described, with singular clearness, the history and diagnosis of his case—he observed that, one day in November last, he felt as well and as strong as when "he was twenty-five years old," but in the evening was as near death as a man could be to live. On the day thus referred to, he was suddenly seized with excruciating pain in the abdomen, and this, followed as it was by continuous pain and entire constipation for many days, was a cause of much alarm to his friends. Under the able care of his son-in-law, Dr. Cookson of Stafford, he greatly improved, and in the spring of this

year went to Brighton for change of air. After a few weeks by the sea he returned to Stafford, but with little inclination or ability to resume work. Gradually he continued to fail: lost all desire for food and all gustatory sense, suffered intense pain, with complete obstruction of the bowels, and succumbed on June 5th. The cause of death proved to be malignant disease above the sigmoid flexure of the colon, with complete obstruction, gangrene of the intestine, and perforation into the peritoneum.

Dr. Day commenced his medical career as a Licentiate of the Society of Apothecaries in 1835. He subsequently, in 1842, took up the membership of the Royal College of Surgeons; graduated in medicine at St. Andrews in 1858; in 1856 passed his examination as Licentiate of the Royal College of Physicians, the late Professor Rolleston being one of the same number; and in 1872 was elected a Fellow of the Royal College. He was one of the past Presidents of the St. Andrews Graduates' Association, and when the Sanitary Institute of Great Britain met at Stafford, in 1878, he filled in the most able manner the post of President of the Section of Sanitary Construction. He was a Fellow of the Epidemiological Society, a Fellow and Lettsomian Medallist of the Medical Society of London, and one of the most classical of the reviewers of the old *Medico-Chirurgical Review*. *Homo multarum literarum.*

Medical News.

ROYAL COLLEGE OF PHYSICIANS.—The following gentlemen passed the First Examination (Chemistry, Materia Medica, &c.) on July 4th, and subsequent days:—

Adkins, George.
Audland, Wm. Edward.
Baber, John James Yarrow.
Bartlett, Benjamin Pope.
Beales, Thos. Wm. Lewis.
Bevan, Henry Crook.
Biagg, Arthur Frederick.
Bloxham, Geo. Edward.
Bollen, Frederick James.
Brown, Alexander Stewart.
Caleb, Cornelius Clement.
Clay, Augustus Frederick.
Collins, Edward Treacher.
Collyns, Robert John.
Cowan, Frederick Samuel.
Cresswell, Francis.
Crook, John Siddon.
Crook, Thomas William.
Davidson, Hugh Morgan.
Day, Thomas Montagu.
Dixon, Henry Charles.
East, Charles Harry.
Edsall, S. Bernard Alfred.
Evans, Thomas Jones.
Evers, Charles John.
Foley, Charles Nicholas.
Fowler, Charles Owen.
Frost, George.
Griffiths, Alf. Philip Henry.
Hall, Alfred Richard.
Hamilton, John Harry.
Hampson, Joseph.
Harding, Charles O'Brien.
Harper, Charles John.
Harris, Arthur Wellesley.
Hawksworth, Herbert.
Heelis, Robert.
Howard, Heaton Clark.
Iliewicz, Henry Frederick.
Jalland, Robert Wallace.
John, David.
Johnson, Obadiah.
Jones, Albert Edward.
Jones, Robert Donnett.
Kerby, Robert John.
Linney, William Wycliffe.
Littlewood, Harry.
Luff, Arthur Pearson.
Mark, Leonard Portal.
McMilan, John Furse.
Mills, Robert.
Mitchell, Walter Frederick.
Morgan, George.
Nicholls, John Michael.
Oliver, Franklin Hewitt.
Owen, Richard Jeffreys.
Palmer, John.
Parsons, Herbert.
Pritchard, Samuel Evan.
Puddicombe, Francis Morgan.
Roberts, Arthur Henry.
Rushworth, Norman.
Saneyoshi, Yazuzumi.
Saw, Francis Albert.
Scott, Alfred.
Skipper, Edward.
Smith, Edward John.
Southcombe, Arthur George.
Stead, Geoffrey.
Stone, Frederick William.
Thane, Philip Thornton.
Wakley, Thomas, jun.
Wallinger, R. Naamyth Arnold.
Walsh, John Henry Tull.
Ward, Charles Walton.
Warner, Percy.
Washburn, William.
Webster, George Leonard.
Webster, Trevor.
White, Ernest Alfred.
Wigg, Henry Higham.
Williams, Evan.
Williams, John Henry Hywall.
Wilson, William.
Winckworth, Fredk. William.
Withers, Oliver.
Wood, Edward Oaklea.
Woofson, L. Estevan Green de.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 8th, 11th, 12th, and 13th inst.:—

Henry W. B. Saville, Richard B. Sidebottom, and F. Hall, Owens College, Manchester; Everard Woods, George Kirkhouse, H. A. Des Vaux, William Whitworth, William H. Starr, John E. Ruck, Charles W. Low, John Reeks, and H. J. Hewer, St. Bartholomew's Hospital; John F. Bate, Henry Bird, W. J. E. Sampter, Edward Clarkson, Robert E. Duke, George F. Hugill, Leonard J. Kidd, William T. Hodge, Charles E. Bean, Edward Sharpley, H. J. Jones, R. J. Cook, William J. Watson, Hugh E. Jones, James Harvey, F. W. H. Penfold, H. Howard, Edward Sinnell, and S. R. Thomas, Guy's Hospital; Charles H. Taylor, H. W. Haydon, L. A. Buck, Harry Lockwood, and F. W. Kendle, King's College; E. R. W. Carroll, Westminster Hospital; John M. Harper, Alfred J. Hitchcock, N. G. Gilkes, William L. Edwards, H. T. Brickwell, E. G. Howard, Thomas C. Winn, and H. L. Parry, London Hospital; Charles C. Ellis, Herbert Edgelow, and F. W. C. Rogers, St. George's Hospital; George H. Williams, Yale College and Manchester; Arthur W. Rowe, Neville Manders, and George E. Hall, St. Mary's Hospital; James Watson, Charing-cross Hospital; G. G. Adams, Bristol; M. W. Roe, St. George's Hospital; J. H. Keele, St. Thomas's Hospital; W. D. Anderson, Cambridge and St. George's Hospital.

COLLEGE OF PHYSICIANS IN IRELAND. — At the July Examinations the following obtained the Licences in Medicine and Midwifery of the College:—

MEDICINE.—Howard William Acheson, Louis Edward Anderson, James Law Atkinson, Herbert Joseph Birmingham, Herbert Watson Brownrigg, Arthur Gerald Chance, Annie de la Cherois, Francis Philip Colgan, Samuel Ernest De Lisle, Thomas Mark Gallagher, Alfred Adolphus Hayes, William Percy Jones, John Lilly Lane, Francis John Lynch, James Carnegie Macmullen, Claude Henry MacSwiney, Henry Greenwood Mahon, Adam Mitchell, Edmond Murphy, Arthur Hill Murray, George Nelis, Francis Randolph O'Brien, Robert Ignatius Power, Frederick Robinson, William D. Waterhouse.

MIDWIFERY.—Howard William Acheson, Louis Edward Anderson, James Law Atkinson, Herbert Joseph Birmingham, Herbert Watson Brownrigg, Arthur Gerald Chance, Francis Philip Colgan, Annie de la Cherois, Samuel Ernest De Lisle, Thomas Mark Gallagher, Francis John Jencken, William Percy Jones, James Henry Kisby, John Lilly Lane, Francis John Lynch, James Carnegie Macmullen, Henry Greenwood Mahon, Adam Mitchell, Edmond Murphy, Arthur Hill Murray, George Nelis, Augustus Nickson, Francis Randolph O'Brien, Robert Ignatius Power, Frederick Robinson, William Dakin Waterhouse, Patrick Joseph Dempsey.

The undermentioned have been admitted Members:—
Michael Joseph Clune, William Graham, Damer Harrison.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 7th:—
Alexander, Alex. Chas. Archibald, Ardrossan, Ayrshire.
Brewitt, James Bunning, Melton Mowbray.
Johnson, James Bovell, Kingsland-road.

AT the Quarterly Meeting of the Directors of the Naval Medical Supplemental Fund, held on the 12th inst., H. J. Domville, Esq., C.B., M.D., Inspector General of Hospitals, in the chair, the sum of £85 was distributed among the several applicants.

WINDSOR INFIRMARY.—The Board of Management of this infirmary have in contemplation the erection of another storey to the building—an addition which will considerably extend the accommodation for patients in the institution.

ON Thursday evening, June 30th, at a special meeting of Court Temple of Peace, 2958, Kingsland, of the Ancient Order of Foresters, a handsomely framed testimonial, together with an electro-silver tea and coffee service, was presented to Mr. John Deane, surgeon to the Court, "As a token of esteem and regard, and in appreciation of his services as surgeon to the Court."

ST. ANDREWS GRADUATES' ASSOCIATION. — The thirteenth anniversary session of the Association was held at the house of the Medical Society of London on Wednesday, the 6th inst. The following gentlemen were elected officers and Council for the year ending June 30th, 1882:—President of Council: Dr. B. W. Richardson. Treasurer: Dr. Paul. Secretary: Dr. Leonard Sedgwick. Council: Dr. Holman, Mr. Menzies, Prof. Pettigrew, Drs. Seaton, Bransby, Roberts, Christie, Cleveland, Dudfield, MacIntyre, Royston, Wiltshire, Cooper Rose, Falls, Mott, Gramshaw, Semple, Samuel Hill, Dale, Kershaw, Archibald Cholmeley, Davey, Gordon, C.B., Stedman, Crosby, W. H. Day, Griffith, Wynn Williams, Alderson, Cassells, Corner, Lush, M.P., Rhys Williams, Gillespie, Wilkinson, Longhurst, and Henty.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ANTHONY, J., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Kettlewell District of the Skipton Union.

BENNETT, S., L.R.C.P.L., M.R.C.S.E., L.D.S.E., has been appointe Assistant Dental Surgeon to the Middlesex Hospital.

CHRISTIE, J. W. S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Leavesden Asylum.

EDWARDS, D. T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Pentyrch District of the Cardiff Union.

EVANS, Mr., has been appointed House-Surgeon to the Dewsbury and District General Infirmary, vice Bennett, resigned.

GODRICH, A., M.R.C.S.E., L.R.C.P.Ed., L.S.A.L., has been appointed Medical Officer for the South District of the Kensington Parish.

HARTLEY, C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the High Easter District of the Dunmow Union.

JEFFERSON, Mr. A., has been elected House-Surgeon to the York County Hospital.

JONES, J. D., M.R.C.S.E., L.R.C.P.E., has been appointed Medical Officer to Vale of Torridge Order of Foresters, Sheepwash.

LAYCOCK, G. L., M.B., has been elected Physician to the North-West London Free Dispensary for Sick Children.

LUNN, J. R., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the new Infirmary, St. Marylebone.

MASSEY, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Castle Donington District of the Shardlow Union.

MORRIS, J. W., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer for the Llannon District of the Llanelly Union.

MULLEN, J. W., L.K.Q.C.P.I., has been appointed Resident Medical Officer to the Wilton Fever Hospital, Salford.

NELL, R. F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Penarth District of the Cardiff Union.

NEWMAN, A. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Harwell District of the Wantage Union.

PAUL, F. T., F.R.C.S.E., L.R.C.P.L., has been appointed Honorary Surgeon to the Royal Southern Hospital, Liverpool.

PAYNE, H., M.R.C.S.E., L.R.C.P.Ed., House-Physician and late House-Surgeon at the Manchester Royal Infirmary, has been appointed House-Surgeon to the Ashton-under-Lyne Infirmary.

RANSOM, F. P. F., M.D., C.M., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health for the Chesterton Urban Sanitary District.

ROSS, D., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Parish of Portree, Isle of Skye, vice Carmichael, resigned.

SHAPLEY, H. T., M.B., C.M., L.R.C.P.Ed., M.R.C.S.E., has been appointed Surgeon to the Police of the Borough of Leamington, vice Thompson, resigned.

SIMPSON, W. J. R., M.D., C.M., has been appointed Medical Officer of Health for Aberdeen.

STREATFEILD, J. F., F.R.C.S.E., has been appointed Professor of Clinical Ophthalmic Surgery at University College.

STMES, J., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer of Health for the Briton Ferry Urban Sanitary District.

TREHARNE, J. L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Splottlands District of the Cardiff Union.

Births, Marriages, and Deaths.

BIRTHS.

BROWNRIGG.—On the 5th inst., at Hill House, Gravesend, the wife of J. Annesley Brownrigg, M.A., M.D., of a daughter.

DAVIS.—On the 13th inst., at Hythe, Kent, the wife of Arthur Randall Davis, Surgeon, of a son.

LYLE.—On the 5th ult., at Westbourne-square, Westbourne-terrace, the wife of W. V. Lyle, M.D., of a son.

MEREDITH.—On the 6th inst., at Week-street, Maidstone, the wife of John E. Meredith, M.D., of a daughter.

MORISON.—On the 12th inst., at La Motte House, Jersey, the wife of John Morison, M.D., of a son.

NOLAN.—On the 8th ult., at Colaba Point, Bombay, the wife of Surgeon-Major W. Nolan, M.D., Superintendent of the Colaba Asylum, of a son.

MARRIAGES.

CAMPBELL—TWEEDIE.—On the 6th inst., at the British Consulate, Geneva, and afterwards at the English Church, Bex, Switzerland, by the Rev. James B. Hyde, B.A., Surgeon-Major Alexander Dugald Campbell, Bengal Medical Service, third surviving son of the late Rear-Admiral Donald Campbell, of Barbreck, Argyleshire, to Isabella Leslie, elder daughter of the late Alexander George Tweedie, Madras Civil Service, and granddaughter of Alexander Tweedie, M.D., F.R.S., of Bute Lodge, Twickenham.

WATHEN—EDWARDS.—On the 30th ult., at Stoke Bishop Church, near Bristol, J. H. Wathen, L.R.C.P.Ed., of Clifton, to Edith Mary, eldest daughter of Alderman G. W. Edwards, of Stoke Bishop.

DEATHS.

BEALES.—On the 8th inst., at Chapel House, Congleton, Georgiana, the wife of Robert Beales, M.D., J.P., aged 38.

BOND.—At Polesworth, near Tamworth, Joseph A. Bond, L.S.A.L., aged 68.

ILDERTON.—On the 9th inst., at Fairfield, near Manchester, Frederick Walter Ilderton, M.R.C.S.E., M.R.C.P.E., aged 55.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, July 14th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 8	30·01	S.W.	61	55	82	65	52	..	Cloudy
,, 9	29·99	W.	62	55	108	73	48	0·02	Hazy
,, 10	30·15	N.W.	62	52	110	77	44	..	Fine
,, 11	30·22	W.	71	64	114	80	57	..	Fine
,, 12	30·03	W.	75	64	116	85	59	..	Hazy
,, 13	30·27	W.	65	60	116	82	54	..	Cloudy
,, 14	30·23	W.	64	62	112	80	53	..	Fine

Medical Diary for the ensuing Week.

Monday, July 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

UNIVERSITY COLLEGE HOSPITAL.—Ophthalmic Department.—2 P.M., and on Tuesday, Thursday, and Friday, at the same hour.

Tuesday, July 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2 P.M.

Wednesday, July 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, July 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, July 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Annual General Meeting.

Saturday, July 23.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

DR. ANDREW CLARK ON ALCOHOL.

DR. ANDREW CLARK delivered an address on the evening of the 7th inst. on Alcohol, in the Great Portland-street school-rooms, to a crowded and deeply interested audience. He said he purposed offering a few informal remarks upon the influence of alcoholic drinks upon health, upon work, upon disease, and upon the succeeding generation. This question of alcohol was of the first importance to us as a nation and as individuals, and hence a great responsibility rested upon those who professed to speak upon it with authority. He ventured to say that he knew something about this question. For twenty five years he had been physician to one of the largest hospitals in this country (the London Hospital), and there, as elsewhere, it had been a part of his business in life to ascertain the influence which alcoholic drinks exercised upon health, and he had, with deep interest and attention, striven to get at the truth of the matter. In the first place, let him distinctly say that alcohol was a poison, as were also strychnine, arsenic, and opium; but in certain small doses strychnine, arsenic, and opium were useful in special circumstances, and in very minute doses alcohol could also be used without any obvious prejudicial effect upon health. He was not going to discuss what these minute doses were, save to say that they were very minute. A perfect state of health (and it was rarely to be found) could not be benefited by alcohol in any degree, and in nine times out of ten it was injured by it. He said this not as a total abstainer, though he earnestly hoped that all the rising generation would be. Instead of the ideal state of health which might be enjoyed save for the nature of our surroundings, the sins of our parents, and our own sins, there was a sort of secondary health possessed by most of us, and what did alcohol do for this? He had two answers to give—that this sort of health bore apparently with alcohol better than the other, and sometimes seemed as if benefited by it; and this was exactly the sort of health that formed the great debating ground of different people with respect to the use of alcohol. Secondly, there were some nervous people always ailing, yet never ill, for whom he had a profound sympathy, who seemed to derive great comfort from alcohol, and to these he had sometimes said, "Take a little beer or wine, but take great care never to go beyond the minute dose." He did not defend this, but simply stated it to show what he thought. As to the influence of alcohol upon work, Dr. Clark went on to encourage his hearers to try the experiment of total abstinence, and observe the result in regard to work. Let them, however, try it fairly, and not allow themselves to be deterred from it by the evil prognostications of friends. He was certain that if this experiment were tried, each individual present would come to the conclusion that alcohol was not a helper of work, but, on the contrary, a hinderer. Now as to the effect of alcohol upon disease. He went through the wards of his hospital to-day, and asked himself how many cases there were due to natural and unavoidable causes and how many to drink, and he came, after careful thought, to the conclusion that seven out of ten owed their ill health to alcohol. He did not say that these were excessive drinkers or drunkards—in fact, it was not the drunkards who suffered most from alcohol, but the moderate drinkers who exceeded the physiological quantity. The drunkard very often was an abstainer for months together after a period of intemperance, but the moderate drinker went steadily to work undermining his constitution, and preparing himself for premature decay and death. He had no means of finding out how many victims alcohol claimed each year, but certainly more than three-fourths of the disorders of fashionable life arose from the drug of which he was speaking. Finally, Dr. Clark dwelt upon the heredity of the alcoholic taint, and closed by saying that sometimes when he thought of all this conglomeration of evils he was disposed to rush to the opposite extreme—to give up his profession, to give up everything, and to enter upon a holy crusade, preaching to all men everywhere to beware of this enemy of the race

EVIDENCE OF SUCCESSFUL VACCINATION.

Mr. Richard John Carey (Canning-town, Essex).—1. The "anatomical evidence that cow-pox has produced its specific effect on the constitution," to use the late Dr. Seaton's phrase, rests on the establishment and progress of the areola, not on the occurrence of constitutional symptoms, which may be quite inappreciable. 2. Cow-pox, as Jenner pointed out, may again and again be inoculated successfully locally on the human subject, although the person so inoculated may be insusceptible to variolation either by inoculation or by exposure. The conclusion, therefore, which our correspondent would affix to the experiment of double revaccination on himself cannot be sustained. 3. If the eruption of small-pox in the case of the infant related occurred precisely fourteen days after vaccination, it is clear that the disease must have been contracted at least fifteen days before the eruption appeared—that is to say, on or two days before the vaccination took place. 4. In face of the precise evidence as to the protective results of revaccination of nurses and others in our small-pox hospitals, the general statement that out of 689 cases of small-pox received into the West Ham Hospital sixteen (two confluent) were registered as revaccinated cannot be received without clearer knowledge of what was meant by revaccination in these cases, and of the sources from which the information was derived.

Mr. Balmanno Squire.—We are unable at present to devote more space to the discussion of the subject.

Idzi-Shin-Dun-Shis (Tokio).—We cannot exchange.

Vox.—The Roman Medical School would, no doubt, give information upon application by letter.

Mr. Nind.—Thanks. We fear the beverage would, from its comparative insipidity, scarcely meet with general acceptance.

Legiolium.—We cannot insert the letter. The medical attendant must be trusted to treat the case.

An Assistant.—Tripolith is, we believe, an artificial mixture of gypsum, magnesium sulphate, and powdered cork. It has been recommended by Professor von Langenbeck as a material for splints.

Mr. J. Wrixon.—The question is important, and has been fully discussed our columns (see THE LANCET, March 19th, 1881).

ALCOHOL IN THE TREATMENT OF FEVER.

To the Editor of THE LANCET.

SIR,—I should feel greatly obliged if, through the columns of THE LANCET, you will permit me to ask—1. How does alcohol act when given to a patient suffering from fever, with a temperature at 104° to 105°? 2. Does alcohol, through its affinity for water, rob the blood of oxygen? 3. If alcohol crenates the red corpuscles in the blood, does it not act exactly in the same way as the malarial poison in remittent fever, and if in the delirium present in that fever we give alcohol, do we not add fuel to the fire? 4. What is the object set forward by those who largely use alcohol in cases of fever? I have been always told to stimulate the heart; but does alcohol do so, or does it merely relieve arterial tension? 5. A man, seemingly in good health, gets a severe attack of malarial fever. His temperature rises to 105° in the evening, 101° in the morning, in three days he gets violent delirium, and on the fifth or sixth day he dies convulsed. Post-mortem reveals brain healthy, no effusion; lungs healthy, slightly congested, and dark in colour; liver healthy; heart healthy, no white clot; kidneys healthy; spleen enlarged and soft; bowels healthy, no entozoa present; all the glands of the intestines more or less affected, inflamed, and enlarged; no ulceration; no thickening; no thinning; mucous coat slightly congested. What is the physiological cause of death in such a case?—I am, Sir, yours truly,

India, April, 1881. ENQUIRER.

TREATMENT OF WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—Allow me to add a word of confirmation to the efficacy of the carbolic acid treatment in whooping-cough. I have been in the habit of using it for some time, with very good results. A few drops evaporated upon a hot shovel in the bedroom upon going to bed will generally prevent any severe attack during the night. I have also found the administration, in the ordinary doses, of croton chloral extremely beneficial.

I am, Sir, yours faithfully,

ROBERT J. BANNING, M.D.

Dunblane, Perthshire, N.B., May 24th, 1881.

To the Editor of THE LANCET.

SIR,—In common with your correspondent, Mr. Robert H. Firth, I was deeply interested in Dr. Lee's papers on Whooping-cough. My experience of the treatment referred to, carbolic inhalations, extending over the last five months, coincides exactly with that of Mr. Firth in his own case. It is without doubt the most successful mode of dealing with the disease which I have employed during the ten years I have been in practice. I am at the present time engaged in preparing a paper on the subject, giving notes of several cases treated with carbolic inhalation only after the first week.—I am, Sir, yours faithfully,

Thetford, Norfolk, May 24th, 1881. J. R. CLOUTING, M.R.C.S.E.

BEST COPY A

A DOCTOR'S PRIZE.

THE steadiness of hand and eye in emergencies, acquired by medical training, is useful in circumstances other than those surrounding the bedsides of patients on the threshold of death from perilous diseases or injuries. The *South of India Observer* furnishes an illustration of the above remark in the description of a tiger hunt in Croormund, in which Dr. Furnell sustained the principal part. The tiger had taken refuge in a sholah, from which it was desired to expel him. "The beaters had barely commenced their usual terrific din, when out came a sambur, at which Viscount Dalrymple had a shot and wounded; the beast returned to the sholah, but was again obliged by the dogs to seek the open, when he fell to his lordship's rifle. The beaters and dogs had actually passed down the sholah and emerged from the other end, when close by, under where Dr. Furnell was posted, 'Stripes' was seen to be stealing away. He came first straight on to the doctor, but when that gentleman rose and presented his rifle, the tiger turned sharp to his own right, presenting his left side, about fifty paces off—a too fatal target, of which prompt advantage was taken. An express bullet was sent by the doctor clean through the heart, a little behind his left shoulder, rolling him over and over."

PRACTICE OF DENTISTRY IN ILLINOIS.

IN the State of Illinois the legislation regulating the practice of medicine has been supplemented by the passing of Acts to control the practice of dentistry and pharmacy. The *New York Medical Record* informs us that the dentists are to be looked after by a State Board of practising dentists appointed by the Governor, and the pharmacists by a Board, similarly appointed, from the ranks of their own profession. Every dentist and pharmacist must be registered, and all persons entering these professions must give some evidence of education and qualifications.

Mr. G. W. Daniell.—The case was commented on in THE LANCET of May 7th last, p. 757.

Mr. J. D. Jones.—No fee can be charged to the guardians unless they order the examination.

Practitioner.—1. Yes, we think so.—2. The fee charged was certainly not excessive.

Dr. Corbin (South Australia).—As the case is referred for the judgment of the General Medical Council, we think it right to withhold any expression of opinion.

Dr. John Roberts.—The points of medical reform are now pretty well defined, and it would be a fatal error to largely multiply them.

MEDICAL REGISTRATION.

To the Editor of THE LANCET.

SIR,—Finding quite by accident that my name had been omitted from the Medical Register, I went directly to the registrar for explanation, and was informed that it was now the rule to strike off the names of all who did not reply to their circular, whether the address had been changed or not. The probability that others may be ignorant of this (to my mind) summary regulation, makes me think it of sufficient importance to trouble you with this communication.—I am, Sir, yours truly,

Bolt-court, Fleet-street, July 13th, 1881. J. WICKHAM BARNES.

"COST OF HOSPITAL PATIENTS."

To the Editor of THE LANCET.

SIR,—I should feel extremely obliged to you if you would allow me to correct some figures given in THE LANCET of to-day relative to a letter from me to the *Daily News* on the "cost of hospital patients"—viz., the cost of milk in 1830 was 6*s.* 2*d.* per patient, and in 1880 it was 5*s.* 11*d.* The cost of wine and spirits in 1830 was 10*d.* per patient, and in 1880 2*s.* 3*d.*; or in quantity 11·7 ounces per patient in 1830, and 43·4 ounces in 1880. I may add that not more than one-fourth of the in-patients in St. George's Hospital are treated with stimulants beyond malt liquor.

I am, Sir, with apologies, your obedient servant,

Savile-row, Burlington-gardens, W., CHARLES HAWKINS.
July 8th, 1881.

CHRYSOPHANIC ACID IN PSORIASIS.

To the Editor of THE LANCET.

SIR,—In your issue of April 2nd the curative powers of certain agents applied locally in cases of psoriasis form the subject of inquiry as to the way in which such agents act. I should like to say that I have used tannic acid and spirit as a local application, changing that for carbolised oxide of zinc after the former had been used for a week. At the same time I gave turpentine internally in twelve minim doses three times a day, but I did not cure the disease. I then on the fourteenth day mixed the tannic acid with the turpentine, forming a paste. This I had applied three times a day to the affected part, and gave no medicine by the mouth. The patient was cured in six days, and I concluded the turpentine was the curative agent when applied direct to the disease, though it failed when taken by the mouth. Of course further experience is wanting to verify this conclusion.—I am, Sir, yours truly,

India, April 24th, 1881. PERCIVAL HUNT, M.D.

"THE NEW WING FOR PAYING PATIENTS OF THE BRADFORD FEVER HOSPITAL."

ON this subject *A Bradford Practitioner* writes us a long letter, of which the following is the gist:—

"Three thousand pounds have been spent in adding a new wing to the Bradford Fever Hospital, and I am sure none of those who were present at the inaugural lunch will deny that it has been well spent as far as regards the luxurious accommodation provided; indeed, as the resident medical superintendent truly observed, there are few, if any, even of the very rich, who could upon a short notice command such appropriate rooms for the treatment of infectious diseases as are now offered to them at the Bradford Fever Hospital, and he, in common with most of the subsequent speakers, hoped that the rich, for whom the new wards were especially built, would largely avail themselves of the superior accommodation, isolation, and treatment that had been provided for them by their rich friends. . . . What I take objection to is that, whilst the rich are to pay for their board and lodging, they are to have that insignificant item, medical attendance, thrown in. This, Sir, is, I maintain, an injury both to the public and profession—to the public, because unless they are prepared to accept the gratuitous services of the honorary physicians they are debarred from availing themselves of the privileges of the institution; to the profession it is surely an injury that the hospital physicians, who willingly give their services gratuitously to the poor, should be required to do the like for the rich patients of their *confrère*, and may be their own. What would be thought of the physician not on the staff of a hospital who offered gratuitously to treat the wealthy patients of his brother practitioner? And yet this is what the Fever Hospital authorities require their medical officers to do. True, they are accommodating enough to say that the staff will always no doubt be glad to consider any suggestions the patient's regular attendant may like to make; but, nevertheless, the patient will be under the care of the hospital's medical officers, not of their own doctor. . . . . What I would suggest would be that the new wing should be treated simply as a sanatorium, where anybody who is the subject of an infectious fever and is in a position to pay a sum that would give the hospital a profit may have board, lodging, and nursing, and be attended by any legally qualified practitioner he may like to employ. If this were done, I feel convinced both the public and the profession would appreciate the public-spirited conduct of the Board, and the arrangement would much conduce to the stamping out of fevers in the town."

M.A.—We trust that the better definition of medical qualifications will be one result of the work of the Commission on the Medical Acts.

MEDICAL CERTIFICATES AND THE SCHOOL BOARD.

To the Editor of THE LANCET.

SIR,—It may not be uninteresting to the profession to know that, in reply to a communication upon the subject of certificates addressed by a Member of Parliament to the Educational Department, "whenever a medical certificate is required by a School Board in explanation of the absence of a child from school, the cost of the certificate should be defrayed by the Board itself." It is thus justly settled that the medical fees for certificates shall be paid for by those whom only they benefit.

I am, Sir, yours, &c.,

Weston House, Southwark, July, 1881. A. H. HIGGINS.

A NATIVE HOSPITAL CORPS FOR INDIA.

To the Editor of THE LANCET.

SIR,—In the scheme for this long-asked-for corps I find no provision made for any central school for training the native hospital servants. This is a great blot on the scheme, and I think Lord Ripon would willingly allow it to be amended to the extent of permitting such an establishment being founded. The English public would be shocked beyond measure if they knew into what poor, indifferent, underpaid, and wholly untrained hands the sick soldier in India is consigned for all nursing wants. A Viceroy, who has been Secretary of War in England, must know what an outcry would ensue if the facts of the whole case were published. He can now terminate them in a great measure.

I am, Sir, yours, &c.,

July, 1881. I.V.R.C.

ANTISEPTIC VACCINATION.

To the Editor of THE LANCET.

SIR,—Whilst commiserating with Mr. Green for his three days' disablement, and fully agreeing that the disastrous effects of vaccination, as met with by him in his unfortunate experience, ought to be minimised, yet I do not think that the antiseptic system supplies the remedy. I conclude that by the antiseptic system Mr. Green refers to Listerism. Now, the advocates of that method claim for it the power of destroying the various animal infecting atoms, but the success of vaccination depends on the vitality of infecting atoms and the infection of the system from their local inoculation, and so if these are to be destroyed "during vaccination," I rather think that, as far as a preventive operation, the success will not be startling, though as a feat of Listerian surgery the result may be brilliant.

Careful selection of vaccine, and afterwards the ordinary precaution of common sense, will do more, I am persuaded, to prevent and allay local inflammation, and, at the same time, insure efficient vaccination, than that panacea for all ills, "the antiseptic system."

I am, Sir, yours, &c.,

Lambeth-terrace, July, 1881. E. S. VACHELL.

BEST COPY AVAILABLE

Mr. W. O. Den.—We fear there are States in America where men may practise without any qualification, such as Colorado, Columbia, Dakota, Idaho, &c. But public attention is directed to this evil, and there is some hope of better legislation either by Congress or by individual States.

Mr. Fred. W. Lowndes.—We have not preserved a copy.

REMARKABLE CASE OF RETENTION OF THE PLACENTA.

To the Editor of THE LANCET.

SIR,—I think the following worthy of record. It is a case of retention of the placenta for twenty-two days. My patient had had two children previously, and on this occasion was prematurely confined about the fifth month of her pregnancy. I was sent for at 10 o'clock in the morning, about four hours after the birth of the fœtus. On examination I found the os uteri firmly grasping the cord, which was of the usual thickness, and projected externally. There were no pains and no hæmorrhage, and under these circumstances I deemed it prudent to wait rather than attempt any forcible means of extraction. I gave her a drachm of the fluid extract of ergot, which had the effect of causing pains for three or four hours, but after this the uterus ceased to act, and the os still firmly grasped the cord. At bedtime I gave her a draught containing fifty minims of the tincture of opium, with a view of causing the os uteri to relax. The following morning saw no change, the os still firmly grasping the cord, and the uterus making no effort at expulsion of the placenta. I still felt inclined to wait, but called in Dr. Pink, who was visiting next door, to see the case. He also recommended my waiting, and that if the uterus made any efforts to expel the placenta, to assist it with full doses of ergot, and dilatation with the finger. The uterus, however, made no effort, and Mr. Shute saw the case on the sixth day, and injected ergotine subcutaneously deep in the buttock. This had the effect of causing very considerable pains, but only two very small pieces of the placenta were expelled. The injection was repeated the following day, but no placenta followed. About the fifth day the discharge became slightly offensive, and I ordered her carbolic acid injections into the vagina. From the fourth or fifth day there was more or less fever with quick pulse, and the patient complained of a pain at the lower part of the back, which was very persistent. On the eleventh day, early in the morning, she had a severe rigor, followed by profuse sweating; but whether this was due to the absorption of any septic poison, or to some error in diet the previous day (Sunday), is doubtful. She was ordered a mixture containing quinine and opium, but she had no return of the shivering, and matters went on with little change for the next six or eight days, when she was able to sit up in a chair for a few hours daily. On the twenty-second day, at 11 o'clock at night, I was sent for to go at once. On arrival I found there had been a little hæmorrhage, which alarmed the patient and her friends very much. On examination I found the os dilated to the extent of a shilling, but its edges still rigid and thick. I gave her a drachm of ergot, and about an hour after the placenta was expelled, perfectly fresh and sweet, without any appearance of membranes. After this the pain in the back ceased, and the patient made a good recovery.

I think there can be little doubt that in this case there must have been inflammatory adhesion of the entire placenta to the uterus. The patient had consulted me about two months previously for an obscure pain at the lower part of the abdomen, being then about two months pregnant. This pain no doubt was the commencement of the inflammation leading to the adhesion of the placenta. One of the most interesting features in the case is the fact that the placenta retained its vitality until its expulsion, for, with the exception of two or three days, there was no offensive discharge; and the offensive discharge on these few days I put down to sloughing of the membranes. Finally it bears, in a very interesting manner, on the question whether in cases of retention, especially in premature cases, heroic efforts at extraction should invariably be adopted.

I remain, Sir, yours truly,

Burney-street, Greenwich, July, 1881. W. NICHOLSON, M.D.

CHEST DIAGRAMS.

DR. HOWARD MURPHY sends us some diagrams which Mr. Silverlock is publishing at his suggestion. They will meet a want which is often felt by medical registrars and clerks of hospitals, as well as by private practitioners, for conveniently representing physical signs. The size, colour, and exact points represented as landmarks have all been carefully considered; and the margin is gummed so that a diagram can be placed in a notebook without trouble. Signs are suggested to indicate different physical conditions in order to insure uniformity in the records.

L.R.C.P. Lond.—We prefer not to notice the filthy book in question.

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China Mail, The Centaur, Manchester Examiner and Times, Philadelphia Trade Journal, Hull Express, Italian Times, Brighton Guardian, Wells Journal, Bradford Observer, Wigan Observer, &c., have been received.

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